CO OPERATIVE SATISFACTION FACTORS FOR EFFECTIVE STRATEGIC ALLIANCES IN THE AUSTRALIAN TELECOMMUNICATIONS INDUSTRY

By

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Thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Business Administration in the Faculty of Business & Law, Victoria University, Melbourne

2008

DECLARATION

I, Vanaja Karagiannidis, declare that the DBA thesis entitled *Cooperative Satisfaction Factors for Effective Strategic Alliances in the Australian Telecommunications Industry* is no more than 65,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Signature Vanaja Karagiannidis Date: 15th June 2008

ACKNOWLEDGEMENTS

This research would not have been completed without the support and encouragement of many people to whom I owe a great debt of gratitude.

I would like to acknowledge and thank the following people for their assistance in completing of this research, particularly Dr. Marcia Perry who provided inspirational and academic support to the preparation of the thesis proposal and initial stages of my research.

I am very grateful to two supervisors who provided positive criticism, strengthened and encouraged me when I was discouraged, gave me space to contemplate issues and believed in my work. My thanks go to Dr. Marcia Perry and Professor Anona Armstrong who have been good mentors to me.

I wish to especially thank T. R. Naidu, who provided access to respondents in the telecommunications industry during the data collection stages. T. R. Naidu shared his network connections and referred me to the Chief Executive Officer of Virtual Communications (Big Blue), Mr. Ravi Bhatia who was Primus Chief Executive Officer, now has returned back to Primus to resume his position and introduced me to some of Telstra's vendors/alliances.

I convey my special appreciation to Mr. Michael Willemyns for coaching me in questionnaire design and to the Heads, Centre for International Corporate Governance Research and the School of Management for supporting this thesis.

Thank you to my husband, Socrates Karagiannidis who was there when I was not in the best of health and always encouraged me not to give up.

Writing this thesis was a long journey. I value the experience as a solid basis for my future endeavours.

ABSTRACT

The telecommunications industry is critically important to Australia's economic future. For this reason it was chosen as the subject of this thesis. This industry has progressed through a number of stages. From 1975 to 1991 it was a monopolistic public utility. During the nineties it became a duopoly (1991-97) before becoming an oligopolistic industry dominated by few major and powerful competitors. By the early part of the twenty first century the industry had rapidly expanded and developed into a more competitive market.

Many transactions and alliances developed between the large dominant market leaders and smaller firms where they co-operated to achieve a common purpose. Some alliances were intended to facilitate co-operations between members of a value chain such as between suppliers of raw materials or components, suppliers and end users. Others were used to share tacit knowledge or expertise. Previous research suggested that, more so than other forms of relationships, alliances depend on social factors for their continuing success.

The purpose of this study was to analyse the relationship between cooperative satisfaction factors (effective communication, commitment and trust, workable power and control, compatibility, cultural respect, and perception that alliance is worthwhile) and alliance effectiveness in the Australian telecommunications industries.

This research used the triangulation approach. One method of data collection was a survey, the other was interviews. A survey was used to obtain quantitative data from a sample of 120 telecommunication companies. A response rate of 52.5% was achieved. A structured interview schedule was also used to collect qualitative data, which formed the basis of three companies case studies.

The objectives of this research were:

1 To clarify the meaning and import of the word ‘alliance’ in the telecommunications industry.
2 To determine the nature of the relationship between cooperative factors and effectiveness of an alliance success in Australian telecommunications industries.
3 To determine the nature of the relationship between cooperative factors and effectiveness of alliance sustainability.
4 To ascertain the effect of organisational size on the relationship between cooperative factors and effectiveness of an alliance.

The empirical findings confirmed that the term ‘alliance’ was used to describe a variety of co-operative arrangements that included contractual or non-contractual agreements, vendor arrangements, major tenders, major networks and cell/cluster groups.

The quantitative research findings supported the proposition that effective communication is positively related to successful alliance effectiveness. Effective communication followed by commitment and trust were significant predictors of effectiveness.

Size has an effect on the power and control factor in a relationship. This finding was supported by qualitative findings in which managers perceived size to matter in an alliance. On the other hand, a powerful partner could exert undue pressure on a relationship on the other; small creative, innovative and fragmented companies need relationships with big, strong and successful telecommunications firms that have established infrastructure foundations in the market. Further, the survey results suggested that respect had a positive influence on the sustainability of relationships. However, the qualitative results showed that other circumstances that influenced respect are often unpredictable.

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GLOSSARY OF TERMS

Alliance: A linkage, a formal or informal arrangement or connection between two or more autonomous groups or tacit agreement to pursue a specified goal and not to disclose sensitive competitive information.

Alliance Effectiveness: inter-firm cooperative linkages that have some form of arrangement/s to achieve what needs to be achieved successfully between two or more independent firms in the relationship.

Analog Service: Voice, radio, TV signals or spoken words transmitted as analogue sound waves.

Bundling: Wrapping products or services into collection or group.

Carrier: Owns certain telecommunications facilities or network units example line links, satellite facilities and base stations for mobile services or wireless loop services.

Cluster: Collection, bunch or group of similar goods/services that are held together by mutual interest.

Cooperation: network of interaction to achieve common goal where the achievement is for all the participants or none of the participants to achieve outcome.

Cooperative Satisfaction: Willingness in working together.

Compatible: Cooperation satisfaction existing together.

Convergence: The information industry is coming together at a meeting point where different network platforms carry similar kinds of services. An example is blurring of technical and technological boundaries between sectors such as telecommunications

and broadcasting arriving at a central point like a circuit switching networks based on the Internet Protocol to carry voice, data and images.

Collaborative: Two or more parties working together to achieve common goals.

Commitment and Trust: Are taken to be similar to one another and the term focuses on the aspect of trust which is the confidence that the contract or agreement will be carried out by the respective party.

Compatibility: Is taken to mean existing together with similarities through complimentary skills and goals that promote a synergistic relationship.

Complex: A repressed sentiment that is in conflict with conscious sentiments.

Cultural respect: Positive regard to values, beliefs and norms, that means the respect from one party to the other's beliefs, values and practices.

Digital Service: Binary bits such as on and off bits transmitted at higher speeds than analogue with clearer voice quality, fewer errors and less complex peripheral equipment.

Effectiveness: Positive outcome capable of producing results.

Effective Communication: Involves a lot of productive listening, open, continuous and frank exchange of information between or among parties in achieving common goals.

Interimistic alliances: Alliances that appear in clusters (spider-web structural pattern) and are fast growing.

Network: Arrangement or 'spider web' system.

Multimedia: Combination of text, graphics, audio, video, or media with interaction with content to produce animation, teleconferencing, remote learning, shopping, and movie images.

Network communication: A set of communications channels linking individuals, groups or units.

Oligopolistic: Few strong major firms powerful enough to influence nationwide footprint in the industry.

Relationship: A formal or informal connection, linkage or mutual bond between two or more parties.

Revolution: A radical change resulting in new ways of doing things.

Size: The number of employees in a firm is one measure of its size.

Strategic: Refers to long-term relationships that exceed more than a year.

Success: A tangible or intangible outcomes such as market growth, increase in revenue or cost savings or value adding concepts to the relationship.

Sustainability: Continuous duration of relationship/linkage/alliance or the longevity of a relationship.

Synergy: Combined advantage of firms/business operating as a team rather than as independent entities. By pooling complementary resources it is possible to achieve outcomes greater than the sum of the individual parts.

Telecommunications: The science and technology of sending and receiving voices or other sounds through sensitive media.

Virtual Workplaces: Telecommuting work arrangements to remote work places.

VoIP: Voice over Internet Protocol that uses the same technology as the Internet and has the potential to enable cheaper long distance and international telephone voice calls than the normal public switched telephone network (PSTN), but not without some upfront costs and technicalities.

Wireless: Cellular technology.

Workable power and control: Practical 'give and take' concept in decision -making.

Worthwhile: Constructive, productive, rewarding or valuable effort.

CHAPTER 1: INTRODUCTION

1.1 Introduction

This introductory chapter presents the research background and provides essential information about the telecommunications industry and its transformation, reasons for the study of telecommunications, definition of strategic alliances, contribution to knowledge, significance of the thesis and conclusion.

1.2 Research Background

This research project aims to determine if there is a relationship between cooperative satisfaction and alliance effectiveness in strategic alliances in the Australian telecommunications industry. This industry was specifically selected for study because of its emerging prominence in Australian business, because strategic alliances are an important feature of its profile (Todeva & Knoke 2005; Telstra 2001; 2003; 2004; Carlson 1996; Lee 1994; Picot 2006) and finally because Australia's telecommunications markets have been open to full competition since July 1997. It is also an accepted fact that telecommunications are now an essential component of any country's infrastructure as well as an important contributor to economic growth and well-being in both developing and industrial countries (Hutchinson 1996:233) and has enormous potential (Picot 2006).

The thesis also highlights the contemporary understanding of an alliance and will test the relationships between six cooperative satisfaction factors (effective communication, commitment & trust, workable power and control, compatibility, cultural respect, perception that alliance is worthwhile) and two alliance effectiveness factors, namely

sustainability of alliance and success (subjective respondent assessment using a Likert scale) of company business success arising from alliance activities.

A set of key cooperative satisfaction factors was identified through an examination of repeating themes in academic and empirical literature (uncovered in the literature review of this thesis, chapter 2 Table 2.3). The factors are fundamentally relational and behavioural in nature and can be identified in six categories. These categories were: effective communication; commitment and trust; workable power and control; compatibility; cultural respect; and perception that the alliance is worthwhile.

Alliance effectiveness is strongly related to 'win-win' business outcomes with each party satisfied that their company is profiting, or will eventually profit or improve the future circumstances for each individual firm and their partnership as a whole in financial or competitive terms (Todeva & Knoke 2005; Rai, Borah & Ramaprasad 1996; Devlin & Bleackley 1997; Brandenburger & Nalebuff 1996; Picot 2006).

The thesis addresses the general research question, ‘What needs to happen in the relationship between business alliance partners to underpin the viability, on-going goodwill, long-term survival and business success of their partnership?’ The thesis also addresses the question, ‘What does an alliance mean in telecommunications businesses in practice?’

An industry survey was conducted to collect data on the cooperative satisfaction and business effectiveness factors in Australian telecommunications companies operating in alliance behaviour. Industry interviews were conducted to provide in-depth analysis as to some of the quantitative analysis

1.3 Brief History of the Telecommunications Industry and its Transformation

When telegraphs and telephone were invented, in 1844 and 1876 respectively, they were seen as the primary telecommunications services for government and business use and not for the general public (Melody 1997; Carlson 1996; Wellenius & Stern 1994).

As the telecommunications industry proliferated it remained an industry of special interest to national governments but became one of public interest as well (Reader 1988; Wellenius & Stern 1994; Melody 1997; Horrocks & Scarr 1993; Dodd 2000; DOCITA 1999).

Traditionally telecommunications services were provided by state enterprises. These entities generally succeeded in building and profitably operating nationwide communication infrastructures, meeting the demands for basic telephone services, mainly voice services with some computer and data communications (Carlson 1996). Melody (1997) and More and McGrath (1996) add further that telecom activities are becoming increasingly integrated into the operations of companies, government agencies, most other organizations, and the economic and social behaviour of individuals. This integration has been growing so rapidly that the productivity of the entire economy now depends upon an efficient telecom system. Telecommunications once regarded as a government managed technical public utility that was a natural monopoly in many Western, European, Asia Pacific and Asian countries (Wellenius & Stern 1994), has now become a more competitive and technologically diversified operation featuring cellular phone and internet access, satellite and fibre optic connectivity, to mention a few (Dodd 2000; Picot 2006), on a worldwide scale.

Today, the world of telecommunications is changing technologically, accelerating rapidly (Horrocks & Scarr 1993; Brock 1981; Picot 2006), and becoming intertwined with other industries, especially with cellular/wireless and information technologies (Trengove 1982; Carlson 1996; Sowell 1979; Picot 2006). Telecommunications provide

entertainment through the Internet as well as commercial services such as banking, airlines booking, e-business and e-shopping.

Technology makes it possible to supply telecommunications services in a wide variety of ways. There are a large number of potential interfaces and points of interconnection between carriers.

> Economic factors including economies of scale, economies of scope and product differentiation, together with regulatory provisions governing unbundling and pricing, rather than strictly technical factors, will determine where carriers and service providers seek to interconnect. (Vogelsang and Mitchell 1997:16)

Carriers in Australia are network operators or 'any individual, partnership, association, joint-stock company, trust or corporation engaged in providing telecommunications facilities or services in exchange for payment' (Wellenius & Stern 1994:683). They are registered by the Australian Communications Authority as shown in Appendix 9 of this thesis demonstrating that there were 125 registered carriers in Australia by 2003. Carriers are obliged to comply with licence conditions and have the extensive right to supply, install and maintain equipment connected to and within communications network parameters. Besides carriers, there are carriage service providers and content service providers who do not require individual licenses but must comply with relevant telecommunications regulation, including service provider rules set out in Schedule 2 of the *Telecommunications Act 1997* (Department of Communications, Information Technology and the Arts <www.dcita.gov.au>).

In Australia, telecommunications until recently had been a government owned enterprise subjected to continuous and intense public scrutiny about its monopolistic position (Trengove 1982). The Australian telecommunications industry was deregulated in legislation enacted in 1990 and 1991. By 1997, the industry was fully competitive and had plans for three carriers: Telstra, Optus and Vodafone (Irwin, More & McGrath 1998). The Australian telecommunications industry is regulated by the

Telecommunications Act 1997 that allows full and open competition. Entry to all telecommunications markets is open and subject to minimal entry and ongoing operational requirements (www.dcita.gov.au). In order to take advantage of the environment many small and medium telecommunication companies seemed to be adopting strategic alliances especially after 1987 in America and the pattern is following in Australia (Carlson 1996) with the major companies taking advantage of the duopolistic or perhaps oligopolisticly fragmented telecommunications industry.

Major central company Telstra has four dominant strategic alliances that dominate the industry's alliance (with Alcatel, Ericsson, Nortel and Siemens). There are also five Optus strategic partnerships (with DEC, Fujitsu, Leighton Contractors, Nokia and Nortel Australia) and two Vodafone alliances (with Ericsson and Keycorp). The outcome is that essentially major transnational corporations Alcatel, Ericsson, Fujitsu, GEC Plessey Telecommunications, NEC, Nortel, Philips and Siemens, dominate the Australian telecommunications industry and many small indigenous companies have developed in response to local market opportunities (Irwin, More & McGrath 1998).

After 1997, the Commonwealth Government announced that the telecommunications industry would be opened to greater competition, meaning that foreign satellite operations were allowed to operate services in Australia (Bureau of Transport & Communications Economics 1995). Since the '1990s telecommunications is seen as having more of a service role' (Melody 1990: 22) where delivery of 'government services with respect to welfare, social and educational services is crucially dependent on the telecommunications system' (Melody 1990:13). The telecommunications industry is expanding and changing tremendously (Horrocks & Scarr 1993, Picot 2006) and is a significant industry that lacks 'commercial research information in Australia compared to the United States where information is freely available' (Bureau of Transport & Communications Economics 1995:109).

1.4 Why Study Telecommunications?

The Australian telecommunications industry was selected for this study because of its prominence in Australian business. The daily importance of telecommunications and technology in our lives, the changes in telecommunications infrastructure, the technological changes in equipment and service opportunities of convergence of voice, internet access and cable TV were primary areas that attracted the author to conduct research into this industry.

Cooperative linkages were happening in the telecommunications sector in Australia and were reported in the Bureau of Transport and Communications Economics, (1995:109), Melody (1990:19), and supported by Macdonald and Mandeville (1984) and Michael Hutchinson (1994). Hutchinson stated that

> …telecommunications in Australia is an important and growing service and equipment industry within Asia-Pacific and global telecommunications activities proven by real growth, technology transfer and innovation that have emerged in relation to government policy encouraging the location of transnationals and ensuring carrier industry development obligations to local industry to develop the IT&T industries. (1994:233)

Some notable successes have included a Nokia-ERG alliance, Nortel sponsored R&D at the University of Wollongong, and a NEC Centre of Excellence' (Irwin, More & McGrath 1998:471) as well as eBay Australia and New Zealand – a 50:50 joint venture between Ecorp and Ebay Incorporation of the United States seeking to tap some of the potential in internet commerce in these countries (Hanson, Dowling, Hitt, Ireland & Hoskisson 2005:343).

This research is significant in the Australian context, because it examines cooperative factors required in the rapidly growing, highly competitive Australian

telecommunications industry, an industry that now relies heavily on cooperative networking and alliances with industry partnering for survival and growth. As Doz and Hamel (1998:9) pointed out, a new era of partnership building is arising in the cellular communications industry called strategic alliances (Joshi, Kashlak & Sherman 1998; van Marrewijk 2004; Picot 2006).

The importance of the topic was confirmed by Business Sunday (Australian television program, Channel 9, 26 August 2001) which highlighted changes and competitiveness of the telecommunications industry that all contributed to the significance of cooperation in working in alliances.

1.5 Definition of Strategic Alliances

Strategic alliances are inter-organisational relations that are formed through mutual agreement between two or more independent firms to serve a common business objective (Mandal, Love & Irani 2003; Greenhalgh 2001; Hanson et al. 2005). Strategic alliances are relationships based on trust, empathy and a win-win philosophy, where these words are over used and misunderstood and many managers do not know what an alliance really is (Spekman, Isabella & MacAvoy 2000). However, there are also a lot of corporate managers who view strategic alliance as a key element in their company's growth strategies, like accelerating company revenue opportunities, leveraging skills of partners to develop and introduce new products or services, entering new market segments, and focusing corporate attention on activities that are core to the business for example securing cost advantage or filling a lack of expertise technologically or skill-wise (Spekman et al. 2000; Das 2004). Ryan and Morris (2005) equate strategic alliances to strategic partnerships.

According to Hill and Jones (1998:291), 'strategic alliances are long-term co-operative relationships between two companies'. Alliances range from relatively short-term

project-based cooperation to more inclusive long-term equity-based cooperation or joint venture concepts (Lorange & Roos 1993:1). Thompson and Strickland III (1998:160) and Greenhalgh (2001:111) describe 'strategic alliance as a cooperative relationship with other companies to complement their own strategic initiatives and strengthen their competitiveness' and 'each party having something to offer the other which makes a difference' (Newman & Chaharbaghi 1996:851). Hanson et al. believe that:

> …strategic alliance is important in the consolidation of industries and is a partnership between firms where firms resources, capabilities, and core competencies are combined to pursue mutual interest to develop, manufacture, or distribute goods or services. (2005:343)

1.6 Contribution to Knowledge

This research project identified, through an industry-wide survey and follow-up case studies, the relationships between cooperative satisfaction factors and alliance effectiveness in the Australian telecommunications industry (see Section 4 for a description of the research instruments). Identification of the six critical human-centred factors from the literature review (Table 2.3) and the questionnaire (see Appendix 3) are also a contribution to knowledge.

The research proposes to contribute to theory building on strategic cooperative linkages discussed in the literature review and referring to Table 2.3 of chapter 2, by identifying and examining the core cooperative satisfaction factors that have contributed to strategic alliances, or, conversely, undermined them through their lack of application or neglect. It is unfortunate that many companies have been moving on a trial and error basis in establishing and managing alliances when 'the strategic logic of the alliance have been poorly tested and are more fantasy than reality' (Doz & Hamel 1998:10). Although the literature on alliances is vast, there is little research on alliances dynamics

(Walt 1987; Ward 1982), to which the researcher intends to add to public understanding of the word alliance and its application to this industry.

The study considered the factors involved in sustainability of an alliance relationship, the nature of alliance contracts (success) and the prerequisites for long-term cooperative linkages or relationships. Since many managers are confused with the word alliance (Spekman et al. 2000), this thesis seeks to contribute original and valuable information to clarify the meaning of alliances in practice.

1.7 Significance of Thesis

This research is highly significant for both the telecommunications industry and industry generally because strategic alliances are becoming ever more popular (Narula & Hagedoorn, 1999; The Economist Intelligence Unit 1994; Bureau of Industry Economics 1995; Klint & Sjoberg 2003; Anslinger & Jenk 2004; van Marrewijk 2004; Todeva & Knoke 2005; Hanson et al. 2005; Ryan & Morris 2005; Taylor 2005; Picot 2006) and need to be managed properly. Banaghan (1999:42) stated, 'Telstra is looking for a very solid venture arrangement, and not some loose alliance'. Moreover, over the past three years, many telecommunication carriers have turned towards technological consolidation, mergers and strategic alliances in an effort to provide seamless global communications (Berenson 1999; Carlson 1996; Zourray 1998; Klint & Sjoberg 2003; van Marrewijk 2004; OECD 2001).

The research is significant in the Australian context, because it identifies the cooperative factors in the rapidly growing, highly competitive Australian telecommunications industry – it is an industry that now relies heavily on cooperative networking and alliances with industry partnering for survival and growth seamlessly (Telstra 2003; Joshi, Kashlak & Sherman 1998). Also convergence is reshaping the telecommunications landscape where industries work together in IT services, rich

content, digital rights management, branding, broadcasting of media, combine with PCs, smart phones and game consoles and IP networks, marketing, customer relationship systems, access and broadband where all these elements are put in a network proposition together (Picot 2006).

As competitive boundaries are shifting in telecommunication service providers, firms need to acquire new skills to succeed in the future; and a major avenue for a firm to acquire new capabilities is through the formation of effective strategic alliances (Joshi, Kashlak & Sherman 1998:542-548;The Economist Intelligence Unit 1994; Greenhalgh 2001; Todeva & Knoke 2005; Strategic Direction 2003; Klint & Sjoberg 2003; van Marrewijk 2004; Anslinger & Jenk 2004; Whipple & Frankel 2000).

Although many authors have discussed a wide range of alliance success factors, both qualitative and quantitative, to the writer's knowledge the set of key identified cooperative factors in this study have not been previously assembled as a distinct cluster of factors that determine the success of strategic alliances in the Australian telecommunications industry. Of further significance is the emphasis in this research project on qualitative factors that support the current thinking in industry and academic literature that managerial 'soft' skills are crucial for successful cooperative networking and partnering in industry. It is an acknowledged fact that 'there is little understanding among business executives regarding strategic alliance success' (Todeva & Knoke 2005:123) and a culture of cooperation (Parke 2001; Luarn Lin & Lo 2005). The collaborative assessment methodology provided in this project can become a valuable industry reference for the future.

The findings will be of interest academically and within industry for providing a framework for measuring alliance effectiveness. The urgent need for such a measuring tool continues to grow as tomorrow's companies look towards inter-firm collaboration, in the pursuit of competitive advantage (Farrell & Wood 1999) and integration into international markets where 'firms are forming alliances today as they peruse connections to global information networks' (Raphael 1998:32); supported by Telstra's

Global business solutions (Telstra 2003, Bureau of Industry Economics 1995 and OECD 2001).

1.8 Conclusion

In conclusion, this chapter has presented the research background, precise reason for choosing the telecommunications industry, contribution to knowledge and has also provided the significance of this thesis study where people have a genuine thirst for the meaning of an alliance in practice and what are the cooperative factors for effective strategic alliance in the Australian telecommunications industry.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Alliances or linkages between business organizations today are growing rapidly. Some are successful and others unsuccessful (Parke 2001;Taylor 2005). Alliances are faced with ongoing challenges some of which are contractual, some non-contractual and many tend to be in borderless relationships, which are difficult to track or not disclosed to the general public at large. Industry alliance relationships are described as especially prevalent in the telecommunications arena (Housel & Skopec 2001:41). The literature review begins with the origin of alliances and definition of alliances.

2.2 Origin of Alliances

Strategic alliances are not a recent concept because they have existed in a military sense (Snyder 1997), however strategic alliance popularity is quite recent, taking hold in the 1980s and now capturing centre stage in the business world (Howarth, Gillin & Bailey, 1995; Raphael 1998; Lorange & Roos 1993; Mandal, Love & Irani 2003; Ryan & Morris 2005; Taylor 2005; Davidson, Simon, Gottscalk, Hunt, Wood & Griffin 2006). The origin of alliances involved formal agreement (Small & Singer 1969:257). An alliance, 'I take it in proper speaking, can be the result only of a formal agreement of some sort that makes explicit the contingencies in which military cooperation will occur' (Snyder 1997:4, supported by Terry 1997 and Brandenburger & Nalebuff 1996).

Besides formal agreements of some sort, at times informal agreements can take place as well (Gunaratna 2002) where the alliance remains tacit and implied, instead of formal and written (Crosbie 1974:234). Some examples of formal global alliances are the US

airline carrier Delta Airways linked with Swissair, Sabena and Austrian and American Airways with British Airways (Parke 2001), as well as British Airways and Qantas Airline (Davidson et al. 2006).

One example of a non-formal alliance is when on 'February 23, 1998, Osama bin Laden announced the formation of his alliance: the World Islamic Front for the Jihad Against the Jews & Crusaders and for reasons of security, neither the alliance partner nor Osama wished to disclose the wider composition of the alliance' (Gunaratna 2002:45). This was supported by Crosbie who implied that when a cooperation broadens into an almost symbiotic relationship, then parties in the informal alliance are convinced that such cooperation is sufficient to preclude any need for an orthodox treaty or contract because ethics is more important than just general interest to sustain unwritten alliance (1974:234). Non-equity based alliances can become non-formal when some form of working arrangement relationship takes place between or among firms through social relationship means (Caniglia 1999). For example, the U.S. National Institute of Standards and Testing, through the Advanced Technology Program (ATP) permits the use of informal alliances in ATP projects like the testing of a prototype (http://www.atp.nist.gov/atp/overview.htm) and a key attraction of informal relationships is their low coordination costs, and trading know-how is simple, uncomplicated and more flexible, for example shared distribution services and standard settings for research consortia (Pyka & Windrum 2003).

At times alliances can range from relational contracting, to licensing, to logistical supply-chain relationships, and to equity and non-equity joint ventures (Gulati & Singh 1998).

2.3 Strategic Alliances: Definitions and Purpose

A strategic alliance must be based on mutual cooperation among the parties involved (Lorange & Roos 1993:19; Devlin & Bleackley 1997) and 'factors dictating success in

the future will be less associated with independence and self-reliance than with cooperation' (Sierra 1995:3). As strategic alliance is a 'cooperative agreement between two or more autonomous firms pursuing common objectives or working towards solving common problems through a period of sustained interaction' (Pyka & Windrum 2003:245). Organisations usually become involved in strategic alliances because of some mutual advantage for the organisations involved that would be difficult if each acted alone' (Bartol, Martin, Tein & Matthew 2001, 2003; Hanson et al. 2005).

'Strategic alliances are also referred to often as long-term cooperative relationships' (Hill & Jones 1998:291) and 'cooperative linkages between companies to pursue common goals' (Beamish & Killing 1997:95; supported by Hergert & Morris 1988). Besides, Diegel (1998:8) projects an alliance as an affiliation agreement where smaller carriers take on the image of a larger carrier. Joshi, Kaslak and Sherman (1998:542) also view these cooperative linkages pursuing a common goal as a revolutionary business vision of the 21st Century and they stated: 'where firms need to acquire new skills to succeed in the future … a major avenue for a firm to acquire new capabilities is through the formation of strategic alliances'. Furthermore, alliance formation has grown at a rate of one and half times after 1985 (Hagedoorn & Schakernraad 1993) and two heads are better than one, tends to create added value in most cases especially in the technological consolidation arena (Carlson 1996); and it is 'the dominant strategy for growth and market development in e-business' (Deering & Murphy 2003:11).

'Alliances are distinguished from the traditional multinational corporation – host joint venture and the strong-weak relationships inherent in such ventures by the fact that they are partners among equals' (Sierra 1995:5) but this may not necessarily be so according to Van Aken (2001). Carlson (1996) concluded that alliances are more operational and commonly understood as strategic and can be a 'long-term relationship where participants cooperate and willingly modify their business practices to improve joint performance' (Frankel & Whipple 1999:55). The hottest sectors for alliances are 'airlines, telecommunications, computer hardware and software, biotechnology, and medical services' (Harbison & Jr Pekar 1998:25), educational services too (Ryan &

Morris 2005), and between innovative small companies and large companies especially in marketing (Deering & Murphy 2003:8).

Hergert and Morris (1988) defined alliance formation as a cooperative agreement/linkage between companies to pursue common goals (as did Beamish & Killing 1997:95; Snyder 1997). The purpose of many alliances, supported by Todeva and Knoke (2005), is to: fuse their combined resources; complement each company's expertise; market seeking; acquiring means of distribution; gaining access to new technology; converging technology, learning and internalisation of tacit, collective and embedded skills; obtaining economies of scale; developing products, technologies and resources; achieving competitive advantages, cooperation of potential rivals, or pre-emptying competitors; overcoming legal/regulatory barriers, legitimization, and bandwagon effect following industry trends.

Today, organisations at all levels of the supply chain (vertical and horizontal) are embarking on partnership alliances and forming a vital part of today's business environment (Pyka & Windrum 2003). Lendrum (1995) tends to differentiate strategic partnering from strategic alliances. According to Lendrum strategic partnering 'is about fundamentally altering the way we manage our relationships with customers and suppliers' (1995:23). Partnership alliances 'is about picking long-term winners' (Lendrum 1995:75) whereas 'strategic alliances are relationships between two or more suppliers servicing the same customer/customer base or different customer' (1995:22). Strategic alliances are sometimes referred to as inter-firm cooperative relationships and take a variety of differing forms: advertising 'tie-ins', data links between customer and supplier, sole source suppliers and true joint ventures (Birnbirg 1998).

Strategic alliances essentially involve coordinating two or more partners to pursue shared objectives and satisfactory cooperation is vital to their success (Das & Teng 1998a; Doz 1996; Kanter 1994; Thompson & Strickland III 1998). Therefore, strategic alliances serve as window of opportunities to be exploited and provide the means to neutralise threats (De Man, Duysters & Vasudevan 2001:2), 'forecasted to represent

between $25 trillion and $40 trillion in value by 2004' (cited in *Australian Financial Review*, 1999:20).

2.4 Major Forms of Strategic Alliances.

Taylor (2005) in support of Dussauge, Garrette and Mitchell (2000) differentiates alliances into scale alliances (alliances that facilitate access to new markets and economies of scale) and link alliances which provide access to scarce and complementary resources. Lendrum (1995:22) stated that strategic alliances are relationships between two or more suppliers serving the same customer/customer base, or different customers, and is also supported by More and McGrath (1996) who researched cooperative strategies in the telecommunications sector in Australia and view strategic alliances as inter-firm links such as non-traditional contracts arrangements or equity arrangements, as shown in Figure 2.1 below.

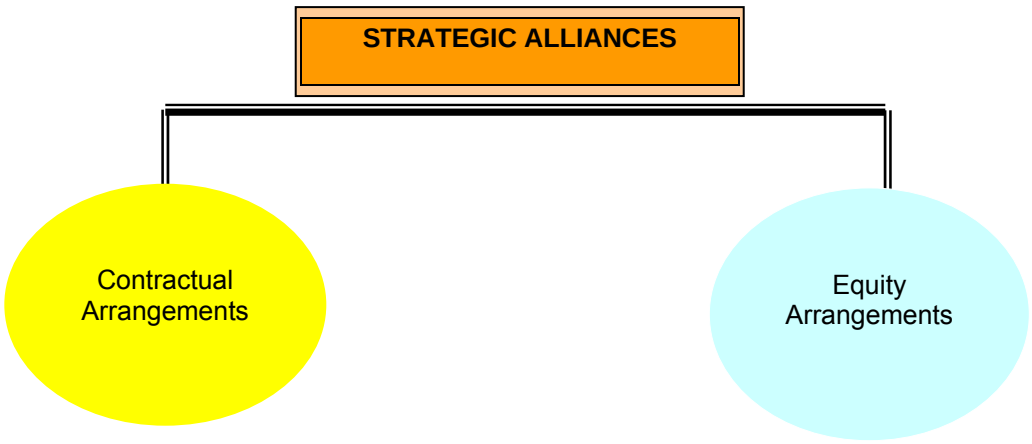

Figure 2.1 Simplified Model Showing Two Major Types of Strategic Alliances

Source: More & McGrath, 1996

'Every alliance is unique and each alliance is most apparent at the negotiating stage when the personalities of the negotiators may mean more to cooperative success than the business issues' (The Economist Intelligence Unit, 1994:29). Alliances can occur in legal forms of contracts or some form of equity arrangements known as formal alliances as shown in Figure 2.1.

Contractual agreements are often found in some form of sourcing arrangement mainly technological sharing of skills and equipment. Examples are Telstra and Siemens, Telstra and Alcatel, Telstra and Ericsson, Telstra and Nortel, and Vodafone and Ericsson (More & McGrath 1996; Hanson et al. 2005). An equity arrangement is where some form of joint-venture investment takes place through creation of an entity, for example, Singtel and Cable and Wireless Optus Ltd. On the other hand, 'many companies are forming not only as single ventures, but as entire networks of alliances' (Sierra 1995:5) and as virtual corporations.

In addition to the strategic alliance definitions explored earlier in this chapter, Brown and Pattinson, (1995, cited in Lei & Slocum 1992) viewed strategic alliances as co-alignments (in technologies, products, skills and knowledge) between two or more firms in which the partner seeks to learn and acquire from each firm what is not otherwise available to themselves or their competitors. Spekman et al. (2000) term such alliances as interimistic alliances or network alliances that have more than two parties often designed to achieve industry standards and are a new breed of alliances. 'Interimistic alliances are focused on achieving success that is narrow in scope and less final results oriented than that pursed by sustainable alliances' (Spekman et al. 2000: 253).

Example of interimistic alliances are that of Cybercash, a small high-tech company that focuses on problems associated with e-commerce security and has an extensive spider web of alliances as shown in Figure 2.2.

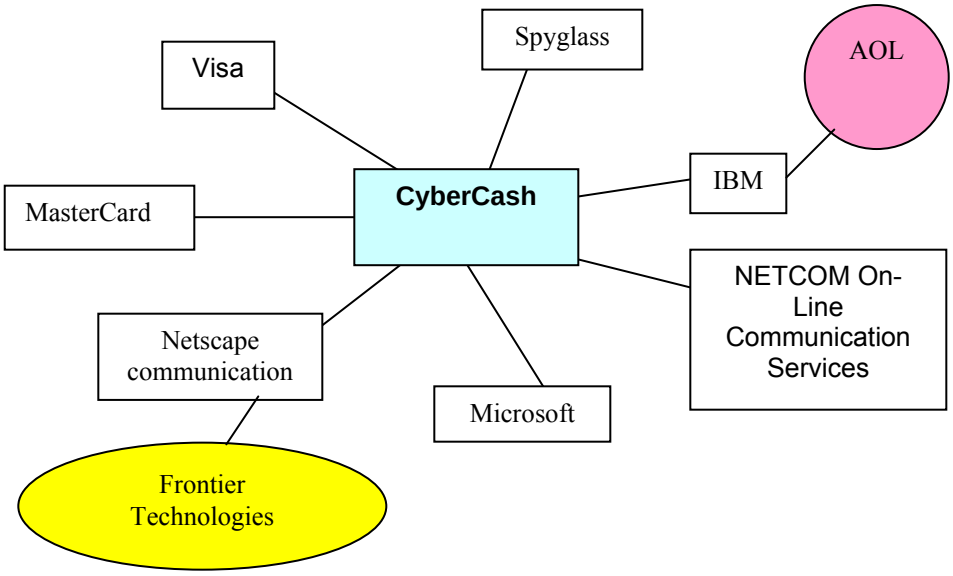

Figure 2.2 Interimistic Alliance: Alliance Involvement of CyberCash

According to Spekman et al. (2000) interimistic alliances are a new breed of alliance that is fast-developing, often short-lived where alliance partners combine their skills and/or resources to address a transient business opportunity. These alliances are usually found in swiftly evolving innovative industries such as technology and telecommunications, where many interimistic alliances join forces to develop an industry standard that seems to be the future of most alliances.

Stafford (1994) viewed strategic alliances or interimistic alliances as a value chain activity or short-term project to be accomplished with the help of a partner. Similarly, Hinterhuber & Levin (1994) stated that strategic alliances of organisations with strong core competences can form a strategic structure of a firm or furthermore an industrial cluster.

Lendrum (1995:22) asks the question about whether there is a difference between strategic alliance and strategic partnering. The answer is yes and no because Lendrum (2003) and Hanson et al. (2005) related that the nature and management of strategic partnerships and strategic alliances are similar and the difference is whether the associations and interdependence of the supply chain are vertical or horizontal. Lendrum (2003:28-29) stated 'partnering or strategic alliance relationships normally involve one-on-one or simple cluster relationships more than the virtual or extended network and are about trust and based on honesty, integrity and shared vision for mutual benefit that can arise from non-contractual arrangements between and among customers and suppliers'. Strategic alliances at times are equated to marriage. As a result 'many manuals on managing alliances could be mistaken for looking more like marriage counselling guides' (Brown & Pattinson 1995:44). Others say this is just a myth and is a compounded confusion of many flaws (Newman & Chaharbaghi 1996).

2.5 Some Similarities and Differences in Alliances: Marriage, Outsources, Mergers and Networks.

The *Australian Financial Review* (1999:20) contrasted an alliance with a marriage. In a *marriage* situation the two parties tend to become one in union whereas in alliances the parties tend not to become one in their relationship. Marriage is inclined to be a strong bond and involves deep intimacy and many claim committed intimacy through faith between partners, whereas a strategic alliance is a long-term or at times short-term linkage, connection or arrangement. As indicated earlier in this literature, strategic alliance is not a marriage, and can be described as 'a bilateral agreement' (Geurts & Van der Zee 2001; More & McGrath 1996). It 'is a voluntary arrangement between firms involving exchange, sharing product development, technologies, or services which occur as a result of a wide range of motives and goals, and take a variety of forms' (Gulati 1998:293; also supported by Geurts & Van der Zee 2001). On the contrary, Taylor viewed an alliance as a marriage and states that in a marriage you cannot run

back to the contract or rulebook for an answer so an alliance too involves give and take and you have to rely on the judgement and integrity of partners in the relationship (2005:476).

On the other hand a strategic alliance can frequently be associated to *outsourcing*. Outsourcing occurs in telecommunications, data centre operations, applications development, help desks, training, hardware support, software support and many more (Williams 1998) and Carlson adds most information superhighways such as telecommunications (1996). 'Outsourcing can take many forms such as strategic alliances, joint ventures, long-term contracts, or implicit collaborative arrangements' (Chung 2002:875; also supported by Carlson 1996). Outsourcing occurs when one company contracts another company to perform one of the value creation functions on its behalf (Hill & Jones 1998:198).

Most often outsource suppliers referred to in academic literature form a virtual corporation with specialised skills and abilities. These could include electronic information controls whereas communication has not had inter-organisation learning as its prime objective (Child & Faulkner 1998).

For example, the Cincinnati Bell firm has developed a distinctive competency in the customer care function such as billing customers, dealing with customers' inquiries and activating accounts and has decided to serve other telecommunications companies like AT&T Wireless and MCI Long Distance in customer care because it can provide a better customer care service than others (Hill & Jones 1998:295). On the other hand, Nike, the world's largest manufacturer of athletic shoes, has outsourced all its manufacturing operations to Asian partners but kept its core product design and marketing capabilities in-house (Hill & Jones 1998:295). Outsourcing is the process of analysing alternatives and discerning which are of core importance and need to be kept in house and which activities can be provided externally (Cashman 1998), whereas an alliance is some connection or linkage between firms or allies to achieve a common goal.

Outsourcing can become an alliance when ‘a strong relationship is developed between parties involved in the outsourcing process and relationships can evolve over time into partnerships or alliances as mutual trust develops between buyers and third parties’ (Moore 1998:25). The outsourcing process can develop into an alliance relationship but outsourcing is different from alliance.

Another term confused with alliances is *merger*. The term merger:

> …includes all forms of take-overs, amalgamations, and purchases of control of additional assets and the central concept of a merger is the right to control (right to determine policy) is conservatively defined as ownership of more than 50% of voting shares. A merger occurs when two or more groups of assets which are organised as income-producing units and which were previously owned by separate groups are brought under the control of the same group. (Bushnell 1961:5)

Some examples are mega mergers such as General Electric and Radio Corporation of America which were brought under the name G.E. Corporation. Unlike a merger, an alliance is a cooperative relationship (Child & Faulkner 1998) of partners (allies) remaining completely independent (Light & Yankey 1998) of one another in a relationship. An example of this was the Canon and Hewlett-Packard alliance which served each partner well but still brought about fierce technological rivalry that created the best laser printer business for consumers (Harbison & Pekar 1998:72).

‘Mergers and acquisitions do not generally count as alliances’ (Carlson 1996:117; supported by More & McGrath 1996; Spekman et al. 2000; Anslinger & Jenk 2004) because 'mergers are like, marriages and during the period after a merger, a brief honeymoon will occur where the two partners become more intimately acquainted' (McManus & Hergert 1998:11), so alliances are not mergers because the two partners have separate identities. When an alliance ceases to exist independently, it is known

as termination of an alliance and is then classified as a merger and acquisition (Spekman et al. 2000). Moreover, uncoupled alliances between two or more organizations are normally referred to as mergers or acquisitions (Davidson et al. 2006). 'Mergers and acquisitions require rapid integration of partners into one coherent firm' (Davidson et al. 2006), whereas 'alliances tend to emphasise co-ordination between different partners' (Bouw 2001:115) and each company tends to co-exist and hold its identity. For example Telecom Australia merged with the Overseas Telecommunications Commission to form Telstra (Freehills 2002:6). In fact 'strategic alliances feature less involvement between the alliance partners than joint ventures, which in turn are also a lesser commitment than a merger or acquisition' (Gaughan 2007:520).

Besides, an immediate:

> …problem is found in a countless examples of smaller firms that are acquired and merged by larger ones whose processes and structures have killed the innovation spirit that larger firm so admired when IBM bought Lotus, the fear was that the talent that developed Lotus Notes would become unhappy and leave the crown jewels [of innovation]". (Spekman et al. 2000:247)

Many times alliances tend to be confused with *networks* because at times an alliance service company provides services to networks such as a databank, matchmaking, data auditing and verification as well as an information clearing house (Parke 2001:122). The word network has lots of similarities to that of alliance as can be seen by the Buttery & Buttery (1995:5) definition of network as two or more organizations involved in a relationship for mutual benefit.

Geurts and Van der Zee (2001) also emphasise that alliances are different from networks (see Table 2.1):

Table 2.1 Key Differences Between an Alliance and a Network

Alliances	Networks
No dominant party.	One or more dominating partners
Planning, evaluation and investment take place with alliance management.	Planning, evaluation and investment are based on realisation of common vision.
New opportunities are defined and carried out in formal manner.	New opportunities are carried out through common discussions and meetings.
Process of change is carefully planned, managed and executed with control.	Process of change is fluid with limited control.

Source: Geurts and Van der Zee (2001:41).

As shown in Table 2.1 alliances have no dominant party whereas networks tend to have one dominant partner or group of partners, and management of an alliance tends to be carried out by an alliance manager whereas networks tend to be managed by one dominant party or carrier. Alliances and networks are quite different in their management approaches and one should not assume that once a capability in alliance management has been built up, a firm is also able to function effectively in a network (Geurts & Van der Zee 2001). Guerts and Van der Zee (2001) also indicated that in 1997, Ericssion, Nokia, Motorola and Phone.com set up the WAP Forum (4 founding members, 150 full technology members (partners) and 70 associate members (content partners like Amazon.com)) to further develop the WAP technology into an industry standard and has no profit objective but to initiate and simulate the network. Today, wireless telecommunications companies operating on boundary-spanning telephone networks have evolved from a patchwork of state-owned or regulated domestic carriers linked by a handful of global carriers resulting in an extensive network of facilities reflected very much in international calls typically having three or more carriers: local service providers in each country and the company providing interconnection services (Housel & Skopec 2001:57).

Klint and Sjoberg (2003) tend to perceive strategic networks as strategic alliances and are supported by Parke (1991) and Buttery and Buttery (1995) because these authors found that strategic networks and strategic alliances are a closely related phenomenon. There can be different strategic networks such as open networks (mutual dependence of parties relatively low), permeable networks (similar to Japanese keiretsu like capital networks), close networks (central firm carries a net of cooperative relationships where over time the ties developed within such networks may be detrimental to the flexibility, adaptability and openness to the relationship) and virtual networks (group of individual companies agreeing to cooperate for a temporary period of time) (Klint & Sjoberg 2003:410). So there are many types of strategic networks, and they can vary and be very complex.

2.6 Alliance Effectiveness and Success

Alliance effectiveness is accomplishing each company's goals within a relationship that 'develops strong and mutually beneficial partnerships that can only lead to positive outcome and growth for both parties' (Cashman 1998:53-54). According to best practice standard's advice 'effective alliances do not work for you but you work through them' (The Economist Intelligence Unit 1994:139). Besides goal achievement, 'cultural issues can have a significant impact on whether an alliance effectiveness venture succeeds or fails' (Todd 1998; and this is also supported by Friedman 1998; Rule & Keown 1998; Naesens, Gelders & Pintelon 2007) depending on a company's synergistic level, and ability to renew and maintain advantageous technological changes, market position and future profit.

A firm's success is predicted on a series of intervening alliances that culminate in achieving the final measure of firm success through achieving the desired outcome (Spekman et al. 2000). Rule and Keown (1998) have highlighted some key competencies for successful alliances such as organisational work processes

(communication and information sharing, trust, attitudes and commitment, cultural compatibility), and ability to survive through a number of big changes (Huxham & Vangen 2005:15).

Alliance success has been associated with clear well-thought-out organisational arrangements and the dissemination of information (Faulker 1993). Another type of measure of the success of an alliance is the extent to which the relationship is sustained. Various researchers have suggested different time intervals as indications of success ranging from short to long term.

Child and Faulkner (1998) tend to believe that for alliances to continue they need to make a choice of evolving from a short-term alliance (2-3 years) to a long-term alliance (median life span of about 7 years). Bleeke and Ernst (1995) also support this concept of the duration of an alliance. However, Brown and Pattinson (1995) tend to believe that there appears to be an unstated assumption or intent that strategic alliances are sustainable relationships although no length is defined. More and McGrath (1996:18) suggest that strategic alliances that last for a period of five years can be considered successful if they have developed suitable synergy between or amongst the parties. Dussauge and Garrette (1997/1998) advised senior managers to look beyond short-term results of cooperation and attempt to anticipate the longer-term impact on the alliance and its longevity (Huxham & Vangen 2005). On the other hand, Spekman et al. (2000) stated 'an alliance can be successful even if the relationship lasts for four months or four years as long as both have accomplished their mission and objectives' (31).

According to Best Practices Standard for strategic alliances, The Economist Intelligence Unit (1994) related success of an alliance is achieved by searching for right partners through the 3Cs of compatibility, capability and commitment. Success of an alliance is a process that needs to be nurtured through the use of tactics for successful collaboration: working on differences between alliance partners (Huxham & Vangen 2005), having a suitable negotiation team, having a balance of trust with scepticism, not

neglecting human resources and changes in corporate leadership, maintaining effective information and communication in the relationship, not ignoring cultural differences and respect cultural differences, having mutual long-term objectives, appointing qualified alliance managers to manage the alliance and working out the cost of alliance failure (The Economist Intelligence Unit 1994).

An example of a successful alliance success is the National Museum of Australia and the adjoining Australian Institute of Aboriginal and Torres Strait Islander Studies has been projected as an alliance success (*Australian Financial Review* 2001). Even Victoria University (Melbourne) tends to claim their alliance success with the Western Bulldogs football team as 'The winning edge strategic alliance' (Nexus 1998:1).

Brown and Pattinson tend to think most strategic alliances have not lived up to initial management expectations over time (1995:43). Even, today 'Corning Glass, one of the world's most successful practitioners of alliances, has to rely on third parties to learn how a potential partner conducts itself in an alliance' (Parke 2001:122), suggesting success of an alliance follows continuous learning and that alliance success is a means rather than an end of a journey.

Despite doubts about the success of strategic alliances, they have been touted as 'the business approach of the future" (Lorange & Roos 1992:273). Yet 'strategic alliance is also one of the most difficult and elusive concepts in the business lexicon' (Friedman 1998:109). There is a growing interest in understanding that:

> …the core competencies that contribute to alliances success is based on the results of industry bench marking such as improve management (strategic consistency and functional capability), organisation and work processes (communication and information-sharing), and corporate culture (trust, attitudes and commitment, cultural compatibility)'. (Rule & Keown 1998:36-37)

Segil's ten key findings of alliance-savvy companies provide meaningful guidance towards successful alliances as stated in the following quote.

> Key to alliance success, is a common culture of tiering an effective method of organising large volumes of alliances, stronger relationships, open communication is essential, monitoring customer responses helps ensure success, managing the collaboration/competition dilemma is vital, linking rewards to success proves beneficial to both parties, flexibility is the key to alliance relationship, individual personalities must be prevented from affecting the alliance relationship and measuring, monitoring and finally reviewing of performance must continue throughout the life of the alliance. (Segil 1998b:12-16)

In addition de Man (2001) who emphasised that alliance success tends to be derived from good management of alliance partners, found that the 'top 25 firms of the Fortune 500 most active in alliances, clearly out performed their competitors in terms of return on equity' (de Man 2001:65; and supported by Taylor 2005:7).

Ultimately, 'success in an alliance depends on a company's ability to gain new skills and knowledge from the alliance as much as possible' (The Economist Intelligence Unit 1994:141) through cooperation and collaboration norms and regulations governing the alliances (Dussauge & Garrette 1999) but the secrets of successful alliance remain elusive (Deering & Murphy 2003) partly because there is no alliance that is flawless and free from pitfalls (Spekman et al. 2000:116).

2.7 Alliance Failures

The undertaking of an alliance involves a certain degree of risk. Many alliances have not been managed and planned properly; instead many alliances take chances in their relationship and as a result the failure rates of alliances are becoming predictably high (70%) (Deering & Murphy 2003:15; Hanson et al. 2005:341; Hill, Jones, Galvin & Haidar 2007: 254). Failures in strategic alliances can be associated with best practice standards not being observed and for reasons supported by Deering and Murphy (2003) as shown in Table 2.2.

Table 2.2 Reasons For Alliance Failures

- Lack of commitment and trust.
- Lack of compatibility.
- Lack of capability in working as a team and establishing financial gains.
- Lack of managing information and communication links.
- Lack of power in decision-making and imbalance in the relationship.
- Lack of cultural confidence and respect.
- Lack of support from corporate bodies.
- Lack of moral and ethical fibre.
- Lack of ability to survive through a number of major changes.
- Lack of alliance manager to manage alliance.

Source: The Economist intelligence Unit (1994)

Managers often 'cite lack of trust as a key reason for failed alliances' (Parke 2001:120; The Economist Intelligence Unit 1994); lack of commitment and potential cultural incompatibility can impose failure as many companies prolong indefinitely the time of getting together in forming an alliance (Brandenburger & Nalebuff 1996:244). The key

issue is: ‘does the alliance make business sense? If yes, then the participants can probably manage their inter-cultural issues’ (The Economist Intelligence Unit 1994:4). Often companies that have not given sufficient thought and time for trust to develop but have jumped onto the alliance bandwagon, tend to be the ones to fail when conditions that supported working together change (Newman & Chaharghi 1996). So ‘lack of management know-how for high velocity trust development can place additional hurdles in the emergence of a culture of cooperation’ (Parke 2001:121) in the alliance relationship. As Ohmae (1990) confidently stated:

> …many alliances and collaborative ventures formed in automotive, electronics and other industries, led the Japanese into foreign markets but some may argue that not one of these alliances had worked and that they were really Trojan horses. (vii)

This describes the relationship between partners within an alliance that have a short-life span and frequently end up with the activity in question allowing an ally to enter into a relationship for market entry but not in a business sense. This situation is not sustainable and is also supported also by Dussage and Garrette (1999) and The Economist Intelligence Unit (1994).

Many times, non-business issues get pushed aside and business justification of an alliance takes centre stage. As a result, these non-business issues such as incompatibility of corporate culture, incompatible managerial personalities and project personalities or differential priority issues that also form the crux of the healthy alliance are being ignored in alliance management and implementation (Segil 1998 a & b; Hanson et al. 2005), are being ignored in alliance management and implementation processes. As with most relationships there are no guarantees that a relationship will be successful without continuous working on the commitment to the relationship.

If one of the company’s become too partner dependent and the strategic alliance no longer leads to a sustainable competitive advantage, eventually the strategic alliance

falls apart and that tends to further increase the imbalance in relationship and power in decision making (The Economist Intelligence Unit 1994). Dussage and Garrette related that in a study that examined 880 alliances, only 40% survived four years in existence and fewer than 15% lasted longer than a decade (1999:8) mainly because allies seek to promote their own interest at the expense of their common objectives in an alliance relationship. Despite this:

> alliances are being forecast to represent between $25 trillion and $40 trillion in value by 2004, research by Andersen Consulting has cast doubt on whether such relationships actually create shareholder value. The management consulting firm found that eight out of 10 executives believe such relationships will be a prime vehicle for future growth, some 61% of alliances are deemed to be a failure'. (Australian Financial Review 1999:20 (and supported by Deering & Murphy, 2003).

These alliances fail because of lack of: partner dependability, commitment and trust, managing information and communication, capabilities working in a team for financial gains, cultural respect and alliance effective managers (The Economist Intelligence Unit 1994).

De Man (2001) highlighted KPMG's alliance failure rates averaging 60% or 70% are not exceptional because 'collaborating with other companies is clearly a dangerous business and choosing the same partner too often and a too tight bond can diminish a firm's chances of attracting other partners' (The Economist Intelligence Unit 1994:7-17).

Bruner and Spekman (1998) explored six sources of failure in strategic alliances between Volvo and Renault: (1) misalignment of senior and operating managers; (2) path dependence; (3) alliance recontracting; (4) leadership style; (5) cultural differences; and (6) time consuming. The alliance between these 2 large enterprises Volvo and Renault that virtually all industry experts applauded in their respective countries for economic objectives, failed after 3 years of its founding and the alliance split apart in

bruising arguments that left observers reassessing the future of alliances and of European integration. Das (2004) supported the Bruner and Spekman (1998) critique of Volvo and Renault's strategic alliance relationship and concluded 'strategic alliances are fertile breeding grounds for opportunistic behaviour' (750). Sometimes 'failure in the 1st alliance might mean an inability to participate in the second alliance' (Spekman et al. 2000:26) and 'other research has shown that more than two thirds of all alliances encounter serious problems during their first two years in existence' (Dussauge & Garrette 1999:8).

Friedman (1998:109) generally indicated that there is no magic bullet that is going to yield a healthy alliance but knowing that 'two companies just buying and selling from each other are not in an alliance', is good for clearing ambiguity about alliances. Besides the financial bottom line (win-win scenario) in an alliance, the softer aspects (for example communication, commitment, trust) in this thesis seem to be significant; therefore these factors of success of an alliance will be analysed and evaluated. Less focus has been placed on the softer aspects in the past.

2.8 Cooperation, Competition and Value of Cooperation

The general industry's understanding of a strategic alliance involves a cooperative agreement or a union by relationship in qualities or partnership of some kind becoming an important means for survival (Morrison & Mezentseff 1996) and creating greater value. On the contrary, Thomas (1998) defines strategic alliances as new uncertainties facing the new millennium and projected three steps in forming alliances: firstly 'create a strategic plan that describes goals to be achieved in the next 3 to 5 years; secondly assess the current means for achieving the desired 3-5 years goals; and thirdly analyse the union's existing relationships' (1998:16-18). Thomas' (1998) third step tends to apply in the telecommunications industry where alliance partners need to analyse their existing relationships and change their view toward vendor relationships and analyse business partners' role for the future more closely.

The word ‘cooperative’ is an important concept in the alliance relationship between companies and ‘alliances are for mutual gain, based on reciprocity; partner information pools and exchanged or integrated specified business resources’ (Sierra 1995:4; and reinforced by Miller & Dess 1996; Yoshino & Rangan 1995; Strategic Direction 2003). Karier implied that cooperation makes firms more resistant to the altering of their prevailing market shares and tends not to use price competition as means of challenging the position of market leaders (1993:122).

Cooperative agreements and alliances between companies can lead to competitive advantage in ways that are otherwise beyond a company’s reach (Thompson & Strickland III 1998:161). ‘Smallest, biggest and richest companies have learned the value of competing through cooperation’ (Parke 2001:119). There is a growing change in the industrial culture to encourage cooperation at the inter-firm and international level of many industries and each firm must have something to contribute or bring the joint activity that the other firms value (Kemmis, Johnston, Collyer & Cliff 1990).

> Strategic alliances from a retrospective point of view are often described as stressful, and in general not a desirable way for pursuing a firm’s strategies – but now the strategic alliance has shifted quite dramatically and represents the business approach of the future. (Lorange & Roos 1993:273)

An alliance is not only one of mere cooperation but also competition so there are ‘both win-win and win-lose elements in relationships with customers, suppliers, complementors and competitors’ (Brandenburger & Nalebuff 1996:39; supported by Segil 2001:67). An alliance tends to be a balance between cooperation and competition. As Rai et al. (1996:141) stated, ‘strategic alliances can leverage its resources to emerge as an effective competitor’ and this is supported by Joshi et al. (1998) and Nadler, Shaw and Walton (1995). So business is cooperation when it comes to creating a pie among suppliers, customers, partners and even competitors

that is achieving similar goals peacefully and simultaneously. When it comes to dividing the pie it is co-opetition, a new word meaning competition within cooperation (Brandenburger & Nalebuff 1996:4). It is like in any given day co-opetition tends to exist between AT&T and Motorola as supplier, customer, partner or competitor.

'Cooperation today has emerged as a prerequisite to effective competition' (de Man et al. 2001:2), supported by The Economist Intelligence Unit who defined strategic alliances as 'ventures between strong international companies that generally remain competitors outside the relationship' (1994:1).

The literature on alliances shows that strategic alliances can be formed not only on national but also on international bases. Robbins, Bergman, Stagg and Coulter (2003) view strategic alliances as partnerships between an organization and a foreign company that share resources and knowledge and provide an approach to go global. A strategic alliance exists when companies engage in cooperative and collaborative behaviour for the purpose of gaining access to new technology, entering new product markets, product development, gaining quality and productivity and/or improving the value chain process (Shipp, Roering & Cardozo 1990; Taylor 2005; Moore & McGrath 1996; Spekman et al. 2000).

Telecommunication companies tend to establish alliances with banking and software supplier companies (Mandal et al. 2003:133). Yeung (1997) particularly stated that cooperative strategies equivalent to alliance strategies are not an exclusive domain of the Anglo-Saxon business world but also for the Asia Pacific business world (23), and Australia is part of both.

The value of cooperation does bring satisfaction as proven by Hargrove who stated, 'a flock of birds flying together in a V formation has the lifting power to carry twice the distance of a single bird flying alone' (1998:3). Scientists tend to relate that cooperation is a fore-gleam of a successful alliance, for example, African baboons and impalas as they work together where the impalas sense of smell complements the baboons' keen

eyesight making it hard for predators to approach undetected; thus the African baboons and impalas form a value cooperative alarm system. Satisfactory cooperation is vital to the success of strategic alliances because the relationship/s essentially involve coordinating two or more partners to pursue shared objectives (Das & Teng 1998a & b; Doz 1996; Kanter 1994; Child & Faulkner 1998) and can help firms gain new competencies, conserve resources and share risk and move more quickly into new market (Hutt, Stafford, Walker & Reingen 2000:51). According to Klint and Sjoberg cooperation can take place within most areas of a company's business operations, such as purchasing, production, marketing product development, information technology and many functional areas of a company (2003:13), through shared leadership (Rodriguez 2005), supported by Olson and Singsuwan (1997).

The benefit of working together cooperatively contributes to skill substitution where company A cooperates with company B because it sees that its partner can exercise a particular skill better than it can (Child & Faulkner 1998:6) in innovation or market share benefits to each company. The best practice standard by the Economist Intelligence Unit's 1994 research report related that cooperation and success in alliances exist when each party in the alliance can create wealth. Parke (2001) supports the concept of cooperation in skill substitution or vital competitive advantages in creating wealth because alliances are here to stay (119) and a culture of cooperation is emerging and warming the relations between erstwhile competitors (121).

The value of cooperative satisfaction has a positive dilemma in an alliance situation in that cooperation coexists with competition as shown in Figure 2.3.

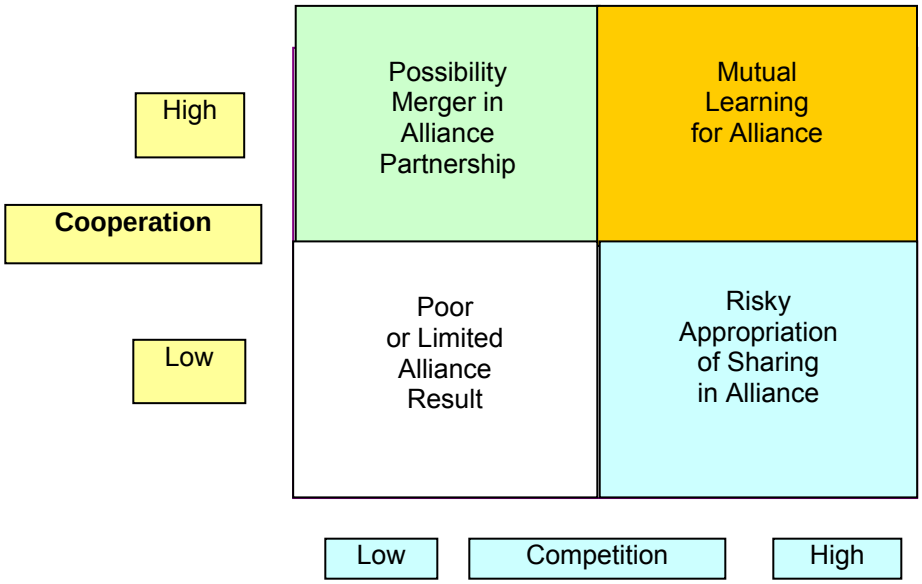

Figure 2.3 Different Combinations of Cooperation and Competition
Source: Child & Faulkner (1998) adapted from Stiles (1997)

Where cooperation is high and competition is low and the alliance has been successful over a period of time, there will be strong pressure for the partners to merge (Child & Faulkner 1998:3). Whereas when there is high competition and high cooperation alliance partners tend to have mutual ground of gaining from one another like Rover and Honda where Rover offers Honda a network of component suppliers and subcontractors and an understanding of the European market. Honda was able to offer Rover the quality of engineering it badly lacked and models to revitalise its vehicle range (Child & Faulker 1998:2). Where cooperation and competition is low, the alliance tends to cease to exist and even if it exists, the alliance tends to achieve only limited results (Child & Faulkner 1998:4). On the other hand after the alliance has been set-up and where competitive forces between alliance partners are very apparent yet actual cooperation is low, there tends to be a risk of appropriation in sharing skills and knowledge (Child & Faulkner 1998:3).

Das and Teng (1997) explored the balance between cooperation and competition. Their study showed profound implications on the balance between cooperation and competition that makes alliances more sustainable and the value of cooperative satisfaction is considered as a mutual benefit and 'is ceasing to be the opposite of competition and is becoming, instead, one of its preferred instruments' of business operations (Deering & Murphy 2003:x).

Today, 'cooperation has emerged as a prerequisite to effective competition and aiming to establish a dominant position in the corporate and consumer wireless communications market' (De Man et al. 2001:2) where an 'alliance between Microsoft and British Telecom on the one hand is competing against an alliance between Cisco and Motorola on the other' (de Man, Duysters & Vasudevan 2001:3; supported by The Economist Intelligence Unit 1994:52). Brouthers, Brouthers and Harris (1997) state 'cooperative ventures such as strategic alliances have taken on an increasingly important role in competition domestically and internationally' (39-52; supported by Todeva & Knoke 2005) who believes that cooperative business ventures, complementariness and synergies between firms have dominated the scientific discourse of competitive collaboration. Parkhe (1998:119-121) states that even the smartest, biggest and richest companies have learnt the value of competing through cooperation. He is supported by Mandal, Love and Irani (2003) but Parkhe (1998) disagrees to some extent about the value of competing through cooperation because the culture of cooperation is yet to established as true.

Literature on cooperative forms of business activities tends to be similar to alliance forms as both range from equity joint venture subcontracting to strategic partners and licensing agreements (Yeung 1997:23). Cooperation develops the ability to enter into markets like China and Japan where a local firm is able to offer a capability which the foreign partner does not yet possess. Examples are the Telstra (Australian) and Pacific Century Cyber Works (PCCW), a Hong Kong alliance (Telstra 2001:54). Telstra's value added cooperative concept of entering the Hong Kong market is rather valuable to the People's Republic China and Australia.

Alliances tend to create better value in 'operating performance (pooling of technical knowledge and stock price) than their industry peers over the 5-year period surrounding the year in which an alliance is formed' (Chan, Kensinger, Keown & Martin 1997). Alliance provides access to technology like Motorola has given Toshiba access to microprocessor technology (Child & Faulkner 1998). Alliances are widely acknowledged as wealth creating or value-creating like:

> …modern telecommunications systems, in the form of electronic supply chains aiming to improve the efficiency of the entire supply chain by substituting real-time information for predictions, improving the accuracy of information transmission, reducing transaction costs, and increasing responsiveness to market conditions. (Housel & Skopec 2001:17)

What companies have in common to allies is usually something very important for strong alliances to develop and to have mutual change and adaptation to create 'surplus value' above and beyond that which can be achieved in a normal relationship (Friedman 1998). Such strategic linkages involve a sharing of resources and skills (Kemmis et al. 1990:ix) with their competitors. Anslinger and Jenk (2004) call this co-opetition that sounds counter-intuitive, however cooperation and competition does create benefits. For example IBM and Siemens are competitors in technological fields but share development costs along with access to cross-pipelines expertise and reduced transaction costs.

Companies that have gone into an alliance with a common objective of a quick response have shown successful 'supply chain cooperation is an important strategic element of quick response' (Perry 1997:57) in terms of time effectiveness and cooperative factors such as degree of trust, degree of transparency, cultural alignment, management commitment and willingness to share, which are value adding in their mutual operations rather than just a mere basic commercial transaction.

Strategic alliances can provide opportunities for partners to cooperatively come together (Moore 1998; Das & Teng 1998b; Dussauge & Garrette 1997/1998; de Man et al. 2001) and create greater value, such as quality or speed-to-market. Most companies tend to plan to have 'cooperation which can be maintained only as long as mutual competitive advantage can be derived' (Spekman et al. 2000:272) like alliance/relationship in two firm's activities within a supply chain and those of its suppliers and customers.

An interesting literature discussion point was that 'a strategic alliance exists when the value chain between at least two companies with compatible goal structures is combined for the purpose of sustaining and or achieving significant competitive advantages' (Morrison & Mezentseff 1996:2) and adds value to cooperation satisfaction. Hence, a:

> …supply chain partnership is a relationship formed between two independent entities in supply channels to achieve specific objectives and benefits. The relationship is usually created to increase the financial and operational performance of each channel member through reductions in total costs, reductions in inventories throughout the supply chain, and increased levels of shared information. Rather than concerning themselves only with price, manufacturers are looking to suppliers to work cooperatively in providing improved services, technological innovation and product design. (Maloni & Benton 1997: 420)

Alliances are part of 'a trend away from the traditional adversarial relationship between suppliers and their customers towards a new form of relationship based on cooperation' (Mortensen 1997:19).

Alliances are becoming more volatile and strong cooperation is needed to sustain the relationships (supported by Crossan & Inkpen 1995; Segil 2001). Relationship details of alliances have been studied by More and McGrath (1996), who adopted Yoshino and Rangan's (1995) definition of alliances as inter-organisational links which must retain

independence, share benefits and performance control, and maintain ongoing contributions to one or more strategic areas (16). This definition supports the author's preference for Beamish and Killing's (1997) aforementioned definition of strategic alliances.

On the other hand, uncertainty of partner's behaviour is of concern to unstable and conflicting relationships in alliances (Hamel et al. 1989). 'Alliances are more likely to achieve sustainable long-term competitive advantages in a market place that is becoming more competitive and volatile' (Morrison & Menzentseff 1996:1; and supported by Parke 2001; De Man et al. 2001). In the 21st century, linkage or alliance relationships tend to be more of a game rather than thought of as a war where competitors can cooperate as well as compete (Tyson 1997:227) and learn throughout the relationship building more efficient and effective value creation (Urban & Vendemini 1992:185).

The conclusion is that cooperative alliances are formed to share in the advantage of a joint search for efficiency and value creation (Urban & Vendemini 1992:185) and are an important topic for the future (Rai et al. 1996:141; Picot 2006; Anslinger & Jenk 2004; Hanson et al. 2005). Factors that support the value of cooperation and at least one other relationship linkage factor are provided in matrix Table 2.3.

Table 2.3 Critical Studies that Support the Value of Cooperation and at Least One Relationship/Linkage Factor in Determining Successful Alliances

Author's Surname and Year	Value of Cooperation	Effective Communication	Commitment and Trust	Workable Levels of Power and Control	Compatibility	Cultural Respect	Perception that the alliance is worthwhile
Anslinger & Jenk 2004	◈	◈		◈		◈	
Beerkens & Lemmens 2001	◈		◈		◈	◈	
Birnbirg 1998	◈	◈					
Bruner & Spekman 1998	◈				◈		
Child & Faulkner 1998	◈	◈	◈	◈	◈	◈	
Das & Teng 1998a	◈		◈	◈			
Dass & Teng 1997	◈				◈	◈	
De Man et al. 2001	◈				◈	◈	◈
Larsson, Bengtsson, Henriksson & Sparks 1998	◈	◈					
Moore 1998	◈	◈	◈	◈			
More & McGrath 1996	◈	◈	◈	◈	◈		
Ring 2002	◈				◈		◈
Ryan & Morris 2005	◈	◈	◈				◈
Segil 1998a	◈	◈	◈	◈		◈	

Author's Surname and Year	Value of Cooperation	Effective Communication	Commitment and Trust	Workable Levels of Power and Control	Compatibility	Cultural Respect	Perception that the alliance is worthwhile
Chan et al. 1997	◈	◈					◈
De Man et al. 2001	◈				◈		
Doz & Hamel 1998	◈				◈		
Dussauge & Garrette 1997/1998	◈						◈
Finnie 1998	◈	◈				◈	
Friedman 1998	◈		◈				
Harbison & Jr Pekar 1998	◈	◈	◈		◈	◈	◈
Hargrove 1998	◈		◈	◈			
Heckman 1998	◈			◈			
Hutt et al. 2000	◈	◈	◈		◈		
Lewis 1999	◈		◈			◈	
Whipple & Frankel 2000	◈		◈		◈	◈	
Naesens, Gelders & Pintelon 2007	◈	◈				◈	
Parke 2001	◈		◈			◈	
Segil 2001	◈	◈		◈			
Shaw 1997	◈		◈				
Hadjikhani & Thienius 2005	◈		◈				

Author's Surname and Year	Value of Cooperation	Effective Communication	Commitment and Trust	Workable Levels of Power and Control	Compatibility	Cultural Respect	Perception that the alliance is worthwhile
Lin, Yu & Seetoo 1997	◈			◈			
Mandal et al. 2003	◈	◈					◈
More & McGrath 1996	◈	◈	◈	◈			
Olson & Singsuwan 1997	◈	◈	◈		◈	◈	◈
Spekman et al. 2000	◈	◈	◈		◈	◈	
Rodriguez 2005	◈	◈		◈		◈	
Taylor 2005	◈	◈	◈		◈		◈
The Economist Intelligence Unit 1994	◈		◈		◈		◈
Todeva & Knoke 2005	◈		◈	◈	◈	◈	
van Marrewijk 2004	◈	◈		◈		◈	
Zanfei 1994	◈		◈				
Zeng & Hennart 2002	◈				◈		

2.9 Six Relationship Linkage Factors

The value of cooperation is the core factor in relationship linkage because alliances are cooperative agreements between companies that may also be competitors (Hill et al. 2007:253). The value of cooperation tends to be a core factor upon which the other six relationship linkage factors are based upon. This concept is supported by the various authors given in Table 2.3.

2.9.1 Effective Communication

Communication and sound conflict resolution have been identified as highly significant in alliances by many researches (Olson & Singsuwan 1997:252; Finnie 1998; Segil 1998a & b; Chan et al. 1997; Spekman et al. 2000; Segil 2001; Moore & McGrath 1996; Shaw 1997; Hutt et al. 2000; van Marrewik 2004; Ryan & Morris 2005; Taylor 2005). Quality of communication, information sharing and participation are communication attributes identified as critical to strategic alliance success (Daft & Lengel 1986, Child & Faulker 1998; Segil 1998a & b; Ohmae 1990; Harbison & Pekar 1998; Mandal et al. 2003; van Marrewijk 2004; Anslinger & Jenk 2004;) and organisational success (Beamish & Killing 1997; Ryan & Morris 2005). Rapid and effective communication is essential for alliances (Doz & Hamel 1998:259) and for sustainability of strategic alliances (Mandal et al. 2003:133). Anslinger and Jenk (2004) imply the importance of communication for creating a successful alliance through development of clear and common objectives. Spekman et al. (2000) concentrate on open communication and state that alliances depend on partner's willingness to share information (52) formally and informally (Moore & McGrath 1996; van Marrewijk 2004). Eugene emphasises that better communication is needed in establishing better purchasing (1995). Effective communication tends to build and strengthen a successful alliance because through effective communication, integrity, a sustainable relationship and trust can be developed with mutual respect (Mandal et al. 2003; Taylor 2005).

2.9.2 Commitment and Trust

For a 'strategic alliance to be attractive and successful, the partners must give strong consideration to the management issues' (Howarth, Gillin & Bailey 1995:86; and supported by Moore & McGrath 1996:61; Zaheer, Lofstorm & George 2002) such as internal commitment to the alliances, examining the role of alliances in management itself and long-term relationships. Todd (1998) specifically emphasises that when searching for strategic partnerships and alliances, firms should look for mutual trust; seek similar goals, values, philosophies and compatible commitment and he is supported by Moore and McGrath (1996) and Segil (1998a & b). Alliances 'should not be viewed as temporary arrangements' (Rai et al. 1996:152) nor as a marriage (Tabakoff 1999:38), and just because an alliance action is legal it is not necessarily trustworthy, so a formal alliance contract is not necessarily trustworthy; the relationship between alliance partners depends on the alliance parties being committed to the relationship and making it work (More & McGrath 1996; Moore 1998; Lewis 1999; Hutt et al. 2000; Spekman et al. 2000; Ryan & Morriss 2005; Taylor 2005), then trust tends to follow.

Trust has to be built through commitment to each other, openness, and honesty and time (More & McGrath 1996; Shaw, 1997, Hills & Jones 1998). Shaw (1997:21) believes that those 'we trust are both willing and able to meet our needs' and trust is a significant factor in alliances supported by Todeva and Knoke (2005) and Lewis (1999:4). Hadjikhani and Thilenius mention that commitment and trust are two key elements in the relationship and can be interchangeably used because commitment is defined as the sacrifices made by partners and the higher the level of cooperation and adaptation commitment, the higher will be the strength and trust in the relationship and both elements indicate the strength and firmness of the relationship (2005:138). Mutual agreement and trust are also important in an alliance (Gulati 1995, Rai et al. 1996) because commitment and trust strengthens the relationship (Hadjikhani & Thilenius 2005:136; Spekman et al. 2000:43-44; Olson & Singsuwan 1997:261). The two parties in the alliance can be competitors in different capacities like Sun Microsystems and

Microsoft where in fact Microsoft is the invisible competitor to Sun Microsystems (Segil 2001:59). They need to trust one another and over time trust is built with commitment in sustaining the relationship (Hadjikhani & Thilenius 2005: Spekman et al. 2000).

Zanfei (1994) tends to consider that time reveals the other parties weaknesses and commitment, and trust to the alliance can be diminished over time. For example in 1989, the evolution and crisis of the alliance between the US telecommunications giant, AT&T (American Telephone and Telegraph) and the Italian telecommunications authority (Italtel), initially developed strong commitment and trust but over time the parties became aware of one another's weaknesses and commitment and trust was diminished in the relationship (Mansell 1993). Olson and Singsuwan (1997:252) stressed that 'mutual trust and commitment are important alliance prerequisites' and 'the higher the level of cooperation the higher the commitment and trust in the relationship' (Hadjikhani & Thilenius 2005:138); and as the relationship progresses the partners gain more knowledge about each other and deeper ties can be developed between parties (Taylor 2005). In situations when there tends to be 'cooperative value in a given partnership, the alliance partnership can proceed and mutual commitment and trust may also increase' (Zanfei 1994: 69). The literature on commitment and trust demonstrates that that trust and relationship commitment are important elements for successful logistics alliances (Moore 1998:25; Parke 2001; Zaheer et al. 2002; Ryan & Morris 2005; Hutt et al. 2000) and each party must earn each other's commitment in an alliance relationship (Lewis 1999).

Even in this situation competitors must work closely with alliance parties and trust their cooperative relationship (Gibson & Rogers 1994:10). Even alignment around goals and coordinated action are impossible when trust is lacking (Shaw 1997:202; Doz & Hamel 1998:184). Tulip (1999) mentioned that 'everyone has to be extremely ethical in a relationship based on trust and trust builds confidence in a cooperative venture' (36-37), and is supported by Das and Teng (1998a & b). The researcher discovered through the literature review that trust is the essence of the breath of life, trust varies according to the eye of the beholder, trust is vital to cooperative coordinative and collaborative

operations for long-term relationships and there exist today a large, untapped market for trust in alliances (Parke 2001; Hadjikhani & Thilenius 2005). 'Finding a partner with an equal sense of commitment to the alliance is the keystone to success' (The Economist Intelligence Unit 1994:14) because trust is the heart of an alliances success and emergence of a trust-based culture of cooperation is not yet widely established (Parke 2001:121) today.

Parke (2001) believes that 'trust is an important and dominant role in successful alliance' (Parke, 2001:120; Taylor 2005:7) and:

> …the far most important factor in alliance success is…commitment, mutual trust and flexibility in the relationship between partners and managing the relationship for cooperation seems to be the key to a successful alliance, and a top priority for its general management. (Child & Faulkner 1998:182)

2.9.3 Workable Levels of Power and Control

Mutual interest in the cooperative linkage is lost when one partner dominates the other (Johnston, 1991; Rai et al. 1996; Birnbirg 1998; Child & Faulkner 1998). The success of an alliance depends on mutual respect (Rai et al. 1996:152; Birnbirg 1998; Das & Teng 1998a & b) for example 'the alliance between Apple and IBM is progressing well and both partners are exercising control jointly, though Apple has not attempted to dominate the alliance despite the clear technical advantage it had right from the start' (Rai et al. 1996:152) and clear rules of decision making supporting the balance of control (Anslinger & Jenk 2004). Conversely, 'if one company acquires another company, control is achieved, not collaboration' (Ouchi 1984a). Gibson and Rodgers argue that an interdependent collaboration of public/private organisations (which he labels as an M-Form society that maintains a tenuous balance between competition and cooperation) needs to be adopted by the United States in order to compete effectively with Japan (1994:11). Morrison and Mezentseff (1996) supports the view that an

alliance hangs on a tedious balance between competition and cooperation and must provide independence to each party in the alliance whilst encouraging a cooperative dependence at workable levels of power and control between partner firms being pulled in all directions (Huxham & Vangen 2005:69; More & McGrath 1996:61; Anslinger & Jenk 2004: 20).

Example of workable levels of power and control being sensitive is in a telecom sector where technological inventions and innovations are an important source of competitive advantage for measurement of market share control, financial control and social control mechanisms used to face the problem of developing trust and commitment (van Marrewijk 2004:250). In summary the literature on alliance success tends to also focus on control being an important issue for alliance success (Yoshino and Rangan 1995:17).

2.9.4 Compatibility

When there is strong compatibility in technology and communications, strategic alliances can be implemented more quickly and monitoring of these two factors adds value to managing strategic alliance success or failure (Brown & Pattinson 1995; Zeng & Hennart 2002). The keystone of an alliance is convergence, complimentary interest and confidence in the behaviour of partners (Crosbie 1974:231-232) such as ethical practices, policies, health and safety and many more (The Economist Intelligence Unit 1994). The optimistic view of compatibility suggests that it is a basis for durable synergies or complementarity between or among the partner firm's capabilities that are engaged in a win-win relationship (Dussauge & Garrette 1999:186).

'When Microsoft pushed forward in software development' (Brandenburger & Nalebuff 1996:15) their partner's compatibility was quite strong in terms of similar operating philosophy and actual work practices improved the alliance (Frankel & Whipple 1999:58) and Morrison and Mezentseff (1996) implied that it is important that alliance partners have complementary skills and capabilities. In sizing up potential partners, it is

advisable to compare managerial practices, policies on ethics and health, safety and environment. In asking any seasoned alliance executive about the importance of compatibility he or she will tell you that compatibility ranks as one of the most important ingredients for a successful alliance (The Economist Intelligence Unit 1994:12-14; also supported by Sierra 1995:12; Spekman et al. 2000; Zeng & Hennart 2002; Todeva & Knoke 2005; & Taylor 2005).

In the market place competitors within the industry do come together to form alliances based on synergistic effort in coordinated activities and willingness to share resources between allies such Italtel and Siemens Telecommunication (Hanson et al. 2005).

2.9.5 Cultural Respect

Organisation culture or company culture is defined as 'the way we do things around here' (Smith 2003:249) or the natural chemistry between corporations that share the same value (supported by Rodriguez 2005; Lewis 1999; Spekman et al. 2000; Segil 1998a & b). Many companies make 'culture the culprit of alliance failure' (Doz & Hamel 1998:187) but de Man et al. 2001 tends to support earlier research (by Harbison and Jr. Pekar, 1998; Peters & Waterman 1982; Olson & Singsuwan 1997; Child & Faulkner 1998; Segil 1998a & b; Todeva & Knoke 2005; Spekman et al. 2000; Anslinger & Jenk 2004; van Marrewijk 2004) to believe that 'cultural fit between the partners forming the alliance is one of the contributing factor to alliance success' (2001:65).

Managing culture is critical in a cooperative linkage and 'socialisation provides much-needed interaction among managers from both sides to familiarise themselves with their partner's common values and norms for the alliance' (Das & Teng 1998a:505; and supported by Rodriguez 2005). FedEx has institutionalised a process of assessing cultural differences between partners and believe that partners who do not share certain core values in culture will avoid partner alliance (Spekman et al. 2000). More and McGrath (1996) view cultural compatibility as difficult to achieve but building a culture of trust is possible (Lewis 1999) and respecting the way we do things between partner

firms is more than blind trust and instead is building a culture of respect and trust (Whipple & Frankel 2000).

In strategic alliances the managing of organisational culture presents both a daunting challenge and a potential opportunity (Das & Teng 1998a & b; Sankar, Bouton, Davidson, Snyder & Ussery 1995; Beerkens & Lemmens 2001; van Marrewijk 2004) therefore 'the fit between the two partner's organisational cultures can be a make or break issue for the success of the alliance' (International Market Assessment Pty Ltd 1996:36; Rodriguez 2005; Naesens et al. 2007).

2.9.6 Perception that the Alliance Adds Value or is Worthwhile

Partners need to perceive or believe their company is benefiting or will benefit in a business sense from the alliance. Where a 'win-win' position has been achieved with the alliance providing mutual benefits for the participating companies, belief in the value of remaining in the partnership is highest (Spekman et al. 2000). The mutual benefit may be in terms of apparent or future profits through developing a competitive advantage. 'Many alliance makers also maintain mutual dependence by ensuring that they always provide some value added performance' (Sierra 1995:137). Also performance must be enhanced and specific goals must be achieved in order for the firm to acknowledge that the transition to a cooperative relationship is worthwhile (Spekman et al. 2000; Frankel & Whipple 1999:55-59; Dussauge & Garrette 1997/1998; Chan et al. 1997; de Man 2001; Doz & Hamel 1998). Phone companies and cable television companies are both working in alliance to solve the problem of how people will communicate with each other, access information and add value in the future (Brandenburger & Nalebuff 1996:19). Otherwise alliances collapse because partners fail to contribute their share towards a collaborative relationship (The Economist Intelligence Unit 1994) in a supply chain process (Harbison & Jr. Pekar 1998). Therefore in order for a strategic alliance to be successful a business partner needs to evaluate and monitor the performance of partners in order to mitigate risk (Mandal et al.

2003) and the importance of ‘an alliance is worthwhile’ spirit cannot be emphasised enough (Spekman et al. 2000:4).

2.10 Sustainability of Alliance

Spekman et al. (2000) associate sustainability with the length of partnership and Downey (2004:81) believes that sustainability is about the environment and the social responsibility of partnerships that takes time to develop continuous improvement. Sustainability can be taken as the duration of a relationship/linkage/alliance or the longevity of a relationship. For example Corning manufacturing organisation had an alliance that lasted for 30 years and was considered a long-term relationship. In contrast, for e-commerce companies, a six-month relationship or alliance can be considered as a long-term relationship (Spekman et al. 2000:57). Some research uses the length of relationship as a measure of sustainability and over time as an integrating force for success of an alliance (Downey 2004). Generally, the standard market-oriented approach to sustainability pays scant attention to resource and environmental relationship issues. Sustainability is difficult to define (Jucker 2002:11) and makes no provision for long-term relationships (Alperovitz 2003:3), therefore sustainability is not a surrogate for performance. However for companies of a given type alliances that last for a long time are more successful than those that do not (Spekman et al. 2000:57) and caution should be taken with regards to the use of measures of sustainability as a measure for success like a one-size-fits all approach (Jucker 2002:15).

Khan (1995) developed a universal methodology for evaluating sustainability as the linkage of three important aspects of sustainability namely, social, environmental and economic. This new concept is not easy to assimilate given the imperfections in economic and political systems and thus sustainability can easily remain a mind-set equated to duration or time (Khan 1995). Besides, duration is not the criteria for success because ‘an alliance that last four months can be as successful as an alliance that last four years if both have accomplished their stated mission and objectives and

learning has occurred' (Spekman et al. 2000:31), and the notion of long-term varies and is industry specific. Brown and Pattinson (1995) studied alliance partner asymmetrics and discovered that similar cultures, asset sizes and venturing experience levels tend to contribute to longer ventures between partners which the researcher associates with a sustainable relationship.

Interestingly, Finnie (1998) discovered that world class companies demonstrated alliance relationships tend to succeed as long as each firm in the alliance combines their strengths for mutual benefit and the basics of a successful strategic alliance are in place, most importantly 'in choosing the right business with which to work and gain the confidence of their new colleagues and prospects in their expanded professional horizon' (Cohen 1998:116-117).

2.11 Firm Size In An Alliance: Does It Matter?

Firm size tends to be a robust empirical variable in many research studies (Shalit & Sankar 1977) and empirically measured in terms of total dollar annual sales, total assets net of depreciation and depletion, total number of employees stockholders equity, and market value of the firms at year end (Shalit & Sankar 1977:292).

During the early 19th century, many large enterprises in Australia were found in the public sector such as Telecom Australia, Australia Post Housing and Construction and the Australian Taxation Office (Hook & Harding 1982). As the size of a firm increases there tends to be less goal clarity, greater formalisation, more supervisory levels and increased opportunity for information distortion (Bartol, Tein, Matthew, & Martin 2003:587). Research found that the average size of firms in industries tends to be dependent on external finance and is larger in countries with better financial markets, consequently suggesting that financial constraints limit average firm size (Krishna, Raghuram & Luigi 2003).

Size does not necessarily reflect market power: Often a firm's market share reflects the general level of its resources, that may even include R&D capabilities and perceived quality of its products. For example in 1999, Intel implemented a tactical reduction of 41% in the price of its pentium chips to take sales from its competitors. These actions caused National Semiconductor to exit the PC microprocessor business and the company fell behind in the technology and did not have the resources to increase its technology development (Hanson et al. 2005:193).

Is size of the firm a critical matter for alliances? In alliances it is not about size but about business and relationships (Spekman et al. 2000) and fear is a very real matter among managers of small firms that seek alliances with larger firms, for example companies involved in the biotechnology industry. Information technology and telecommunications industries (Spekman et al. 2000) that are so fragmented have smaller firms seeking alliances with larger firms to develop an industry standard or complete a similar project (Spekman et al. 2000). In recent times similar relationships between innovative small companies and large companies with ample marketing channels seemed to be effective (Deering & Murphy 2003; Child & Faulkner 1998; Segil 1998a & b; Todeva & Knoke 2005).

In regards to telecommunications most firms tend to partner with small companies to gain access to niche markets through specialised knowledge and applications (Spekman et al. 2000:50). 'Similar relationships are common in the modern pharmaceutical industry as well' (Deering & Murphy 2003:8). It is possible for small firms to enjoy certain economies of scale through schemes of cooperation (Stanlake 1982:90).

On the other hand, studies on size of the firm shows that size can be a positive risk for small firms when they consider the potential gains that could motivate takeover by a large firm, therefore size can be a positive contributing factor to risk as studied by Trimbath, Frydman and Frydman (2000).

2.12 Importance of Learning Implications In An Alliance

In fast moving telecommunications and technology markets strategic 'alliances are becoming a norm' (Newman & Chaharbaghi 1996:852) and their commencement and maintenance requires knowledge leadership and complementary capabilities for alliance learning (Spekman et al. 2000). Learning is the acquisition of new insight/knowledge and a new way of thinking about the future that can improve the firm's outcome (Spekman et al. 2000). Therefore alliance managers must discover a process for enhancing the ability of partners to learn and grow from each other, while simultaneously protecting their core technologies from an unintended leak or, in the worst case, outright expropriation. Learning can have both positive and negative impact on performance of the alliance and over time learning tends to strengthen partnerships in the alliance (Spekman et al. 2000:175-177). For example Rover demonstrated that it learned a great deal from Honda over the decade they collaborated together and Nortel partnered with Matsushita to access Panasonic's third-generation mobile phones that will include the capability to send and receive motion pictures and voice (Spekman et al. 2000).

When organisations identify knowledge (like new technologies) which has high strategic impact, then this knowledge becomes the reason why the organisation pursues an alliance cooperation with the organisation that has the new technologies. Similarly if an organisation owns knowledge that has low strategic impact in its own market like voice transmission telecommunications but is of high strategic impact for others like the e-commerce market, then the organization has a sharing opportunity for an alliance with an e-commerce company (Newman & Chaharbaghi 1996). However, learning alliance implications are important to one's future but the journey to develop alliance competencies throughout the alliance relationship is quite another matter.

Theorists argue that in a volatile environment such as the telecommunications industry, the capacity to learn faster than competitors may be the only important sustainable competitive advantage (Lopez, Peon & Ordas 2005:227) and learning happens at three levels: individual firm level, at the alliance level and personal level too (Spekman et al. 2000: 231).

2.13 Conclusion

In conclusion the literature review has found that there are some similarities and differences between alliance networks and outsourcing but not to marriage and mergers. Marriage has intimacy where the two partners are bonded into one, but 'merger and acquisition can be one form of alliance termination' (Spekman et al. 2000:158). From the definition of alliance, key words emerge such as cooperation, collaboration, relationship and linkage. Factors that are significant to alliance success, or soft factors that can be indicators of failure if not present in the relationships or linkages, are communication, commitment and trust, compatibility between or among partners, balance of power between and among partners, alliance-like behaviour or culture, a win-win spirit or alliance worthiness and many more hard factors such as insufficient time for learning, lack of moral and ethical fibre, and lack of financial gains.

Strategic alliances are specifically concerned with mutual cooperation rather than a one-sided wish to cooperate and 'cooperation is ceasing to be the opposite of competition and is becoming, instead, one of its preferred instruments of operation such as telecommunications' (Deering & Murphy, 2003:x). The literature review has shown no singly author has all the key cooperative values in forming successful alliance relationships or linkages. Therefore, the researcher has critically selected six core soft factors (effective communication, commitment and trust, compatibility, cultural respect, power and control and perception that the alliance is worthwhile) that have been highlighted by different authors as shown in Table 2.3, to be tested as empirical alliance success factors for companies' future directions (The Economist Intelligence Unit 1994;

Brandenburger & Nalebuff 1996; Devlin & Bleackley 1997; Harbison & Jr. Pekar 1998; Rai et al. 1996; Spekman et al. 2000; Segil 2001; Deering & Murphy 2003; Todeva & Knoke 2005).

CHAPTER 3: TELECOMMUNICATIONS INDUSTRY

3.1 Introduction

This chapter provides a synopsis of the history of the telecommunications industry in Australia from its inception to 2007. In the 1980s a wave of liberalisation and privatisation led to major transformation in the telecommunications sector. By 1990 the industry contributed slightly more than 2.25% to the gross national product in the OECD (Organization for Economic Cooperation and Development 1995; Mansell 1993; Wellenius & Stern 1994). Australia was rated tenth in the OECD with strong growth being exhibited over the decade (McArdle 1997; Bureau of Industry Economics 1995).

Advances in microelectronics, software and fibre optics to name a few, fuelled this rapid growth and telecommunications is the crucial link between individual countries and the world economy into which they are integrating (Wellenius & Stern 1994). Simultaneously, major technological changes were taking place in the telecommunication networks globally (Darling 2003:29) including the countries of the Asia-Pacific region and Australia (Hutchinson 1996:233).

The telecommunications industry in Australia has gone through change, from government controlled monopoly, to duopoly, and into a phase where many telecommunication firms enter into alliances out of competitive need following the global trend towards de-regulation of the industry. In Australia, many telecommunications firms are entering into strategic commercial relationships with suppliers and customers (Bureau of Industry Economics 1994). This thesis is highly significant for the telecommunications industry because it seeks to discover the critical success factors of telecommunications industry alliances.

3.2 Brief History of the Telecommunications Industry in Australia

Telecommunications in Australia began in 1854 with a telegraph line from Melbourne city to Williamstown. South Australia's first line was established in 1856 from Port Adelaide to Adelaide city. Melbourne and Adelaide were linked in 1858 and in November that same year, a New South Wales line was activated linking Sydney to Melbourne. The first Queensland line was activated in April 1861 and in 1869 the first line in Western Australia was established linking Perth to Fremantle. By 1875, a link between Adelaide and Perth was established with many thousands of miles of telegraphic lines connecting the different states and territories of Australia (Caslon Analytics 2005).

Table 3.1 The Development of the Telecommunications Industry in Australia, 1975 to 2007

Critical Dates	Development in the Australian Telecommunications Industry
Pre-1975	The Commonwealth Government through Postmaster-General's Department administered and regulated telecommunications.
1975+	The telecommunications function was placed in a statutory commission known as the Australian Telecommunications Commission or commonly known as Telecom. Telecom was granted monopoly rights for installation, maintenance and operation of domestic telecommunications infrastructure.
1980+	In the 1980s the telecommunication network changed from analog to digital switching transmission bringing about increased competition. The Australian Government faced pressure to legislate reforms to the industry.
1985+	The Government introduced the 1st reform package in 1989 (Telecommunications Act, 1989) and continued to make regulatory changes to all communications industry sectors.
1990+	The 2nd wave of reform occurred in 1991 when the Labour Government introduced a package of seven telecommunications Acts 1991. The Legislation established a market duopoly for the provision of fixed network telecommunications services and an oligopoly for the provision of mobile services licenses granted to Optus Mobile, Telstra, and Vodafone by the end of 1992. April-May 1993 Telecom and Optus launch GSM mobile communication services.
1995+	The Australian Competition & Consumer Commission (ACCC) was established on 6th November 1995 by a merger of the Trade Practices Commission and the Prices Surveillance Authority in order to administer telecommunications-specific competition safeguards against anti-competitive conduct. The 3rd set of reforms occurred in 1997 when the

Critical Dates	Development in the Australian Telecommunications Industry
	Coalition Government continued the deregulation process by removing the barriers to entry to the industry promoting open competition. Partial privatisation of Telstra "T1" (33.3%) sold to the public in 1997, The Australian Government introduced an additional legislation for sale of a further (16.6%) of the issued shares in Telstra "T2" sold to the public in 1999.
2000+	The Australian Government mandated closure of the analogue network by 31 December 2000 with Telstra replacing its analogue mobile phone network with Code Division Multiple Access (CDMA) technology.
2005	Australian Communications Authority (ACA) and Australian Broadcasting Corporation (ABC) merged to form the Australian Communications and Media Authority (ACMA). Telecommunications industry remains open to competition. The Commonwealth Government owns 51.8% of Telstra shares and 48.2% owned by private shareholders.
2006-2007	In November 2006, the Federal Government sold its remaining stake that is 51.8% in Telstra as part of the "T3" share offer. It was the biggest stock offer in Australian history. It was called "T3" and was the last leg of the privatisation process where the Federal Government sold its 51.8% in the stake in the carrier. Its residual 17% shareholding was transferred to the future fund in February 2007. Broadband connections in Australia passed its three million mark, with 3,161,600 broadband services connected across Australia.

Source: Hutchinson 1996; Bureau of Industry Economics 1995; Caslon Analytics 2005); www.caslon.com.au/dividesprofile3.htm and Telstra Annual Report 2007.

Australia's first telephone service (connecting Melbourne and South Melbourne) was launched in 1879. The first telephone exchange opened in 1880, in Melbourne and the first Australian coin-operated public phones appear to have been installed in 1890. Section 51 (v) of the 1901 Australian Constitution gave the new national government power over all postal, telegraphic, telephonic and other services (Caslon Analytics 2005). Later radio, television and internet networks were developed in Australia.

The Commonwealth Government assumed responsibility for telecommunications services in Australia upon Federation in 1901. The colonial networks of switches, wires, handsets, buildings and more were transferred to the Commonwealth and became the responsibility of the first Postmaster-General's Department. However, overseas cable links to Australia remained in private hands. From the 1920s, the Postmaster General

(PMG) department became responsible for some international short-wave services and in the 1930s became responsible for the Australian Broadcasting Commission (ABC).

The Overseas Telecommunications Commission (OTC) is a separate government owned authority providing international services that was formed in 1946. The critical overview of the telecommunications industry history is that the Overseas Telecommunications Commission (OTC) was established in 1946 and in 1975 Telecom and Australia Post became separate entities and the Australian Telecommunications Commission (Telecom Australia) was created to administer the telecommunications market (Wellenius & Stern 1994).

A company owned by Telecom operated the Australian national satellite system known as AUSSAT. It was sold under the provisions of the 1991 Telecommunications Bill and was allowed to compete with the merged Telecom/OTC (now Telstra) as a general carrier and is now called Optus (Wellenius & Stern 1994). Telecommunications in the 1970s reflected the use of virtual private networks for major government and business organizations through leased lines from Telecom Australia and Telecom New Zealand, examples were small-scale exchanges by universities such as the dialup modem-based Australian Computer Science Network.

Deregulation of telecommunications started from 1975 onwards after the establishment of OTC and the Australian Telecommunications Commission restructured as the Australian Telecommunication Corporation (trading as Telecom Australia) in 1989. Within the same year, Telecom handed responsibility for telegram operations to Australia Post. Postal and telecommunications functions were separated into two statutory authorities known as Australia Post and Telecom Australia (Telecom) to manage separately the distinctly different requirements for capital, labour and technology (Hutchinson 1996:233).

In 1988 Optus became Cable & Wireless Optus and on 30 June 1991 Telecom's telephone monopoly ended because a second carrier took up a new licence in September 1991 through the establishment of Optus by a consortium that included Mayne Nickless, Cable & Wireless and Bell South (Caslon Analytics 2005). Telecom Australia was incorporated on 6 November 1991 and began operating as a company under the requirements of the Corporation Law. By the end of 1991, Telecom and OTC merged (initially known as AOTC and now as Telstra) and AUSSAT was privatised (now known as Optus) (Caslon Analytics 2005; Hutchinson 1996).

One of the stipulations set for the deregulation of the telecommunications industry sector during the 1980s and 1990s was that it be one of the largest dynamic, and technologically innovative, and competitive market places with included the development of a creative independent value added services sector (The Economist Intelligence Unit 1994:63; Lee 1994; Wellenius & Stern 1994; Melody 1997; Dodd 2000; Strategic Direction 2003). The deregulation and divestiture of the Bell Systems (telecommunications technology systems) in the United States encouraged increased privatisation and the introduction of competition elsewhere.

> …by early 1990s, virtually all OECD (Organisation for Economic Cooperation and Development) countries were at some stage and form of restructuring the telecommunications sector. These reforms have accelerated investment, increased responsiveness to user needs, greatly broadened user choices and reduced prices. (Wellenius & Stern 1994:3)

Telecom became the Australian and Overseas Telecommunications Corporation (AOTC) on 1 February 1992 following the merger of the domestic and international telecommunications carriers (Telecom Australia and OTC Limited). Telecom was retained as the company's trading name in Australia. Telecom changed to its current trading name 'Telstra Corporation Limited' in April 1993 (<http://www.dcita.gov.au/>).

In 1992, Vodafone, a third telecommunications carrier entered the Australian mobile phone market and Australian legislation passed the introduction of pay TV. By the mid 1990s Australia's telecommunications infrastructure provided robust delivery of voice traffic to organizations and domestic consumers across the country. Finally on 30 June 1997 the trio of telecommunications ended (Australian Telecommunications Industry 1990) because the Australian government changed its regulations to fully privatise the industry in 1997 mainly in the equipment and services sectors. As a result, Telstra (previously known as Telecom Australia) was partially privatised in November 1997.

In 2001 Cable & Wireless sold its Optus stake to SingTel and in early 2004 Telstra offered an internet service through BigPond (Caslon Analytics 2005). The telecommunications industry has and is undergoing drastic changes through re-shaping the carriers (network providers) for the new age of wireless data into seamless strategic alliances with internet service and content providers, software developers, and smart phone manufacturers and service providers (Deering and Murphy 2003). Additionally, there has been a phenomenal growth in alliances in recent years (Parke 2001; Bromberger & Hoover 2003; Picot 2006) especially in value adding services like information superhighways (Parke 2001). The transformation in telecommunications seems to have started with more to come until 2010 or beyond especially in the 'information age and the almost unbelievable advances in information technology, where the convergence of computer and communications technologies' (McIntyre 1998:327) seems to be the trend.

According to the Australian Communications and Media Authority (<www.acma.gov.au>) there tends to be a three-tier telecommunications scheme in Australia designed as T1, T2 and T3. T1 are Telstra, Optus and Vodafone (Telstra and Optus provide fixed network facilities and a range of telecommunications services), and Telstra, Optus and Vodafone hold mobile networks; Optus and Vodafone operate digital (GSM) mobile networks; and Optus operates as a reseller of Telstra's Mobile Net analogue service. T2 are telecommunication carriers such as Primus, Hutchinson and

Virgin (has high buyer capacities but do not own infrastructure), and T3 are AAPT and the smaller telecommunication carriers.

In Australia, after the deregulation of the telecommunication industry, a new telecommunications era began involving the private sector and competition (MacDonald, Mandeville & Lamberton 1981). 'Telstra has already indicated to the Government that it wanted to sell a strategic equity stake as part of the process of forming a joint venture or alliance with another telecommunications company' (Banaghan 1999:42). Such strategic linkage tends to "guide firms to compromise between doing something themselves and achieving it through another organisation" (Morrison & Mezentseff 1996:1). Besides the requisite fusion of technologies, including the convergence of telecommunications, media and computer industries means no one organisation can provide all the technologies required for infrastructure (Brown & Pattinson 1995:41; van Marrewijk 2004; Ryan & Morris 2005). In telecommunications 'user demand is bringing about changes in the structure of the telecommunications industry' (Macdonald & Mandeville 1984:19).

In June 2005 the Australian Communications Authority and Australian Broadcasting Authority merged to form the Australian Communications and Media Authority (ACMA), a Commonwealth Government regulator, responsible for administering a range of technical and consumer problems relating to telecommunications as well as managing the radiofrequency spectrum (www.dcita.gov.au). The ACMA performs a key consumer protection function through administration of codes and standards particularly the universal service obligation and customer service guarantee which came into effect in the beginning of 1998 that provides for financial compensation by telephone companies to residential and small business customers when customer standards are not met.

In November 2006, the Commonwealth sold its remaining stake (of 51.8%) in Telstra as part of its T3 share offer and its residual 17% shareholding was transferred to the Future Fund in February 2007 (www.telstra.com.au) and during this period Broadband

grew in Australia (after its introduction in 2000 through Telstra's first ADSL services that were made available via Telstra's Bigpond).

The new telecommunications access regime is administered by the Australian Competition and Consumer Commission (ACCC) that has the power to declare services for the purposes of telecommunications specific access regime of the Trade Practice Act. Once a service has been declared, it is in effect brought within the regulatory 'net'. Carriers and carriage service providers of declared services are generally required to provide interconnection with and access to those services to any requesting access seeker on reasonable terms and conditions, including price (www.dcita.gov.au).

Telecommunications structural reforms tended to be driven by the government and current Australian telecommunications policy is the result of a five-year period of Commonwealth Government reform, which has pushed the equipment supply sector towards competition, globalisation, dynamism, customer-orientation and commercialisation (More & McGrath, 1996). On the other hand, technological innovation has tended to bring about reforms and challenges in products and services such as in the hardware and software telecommunications equipment sector. As shown in Figure 3.1 the major forces driving change in the telecom sector have not come from Public Telecom Operators (PTO) but mainly from telecom industry equipment suppliers, computer hardware and software producers and consumer electronics suppliers (Melody 1997).

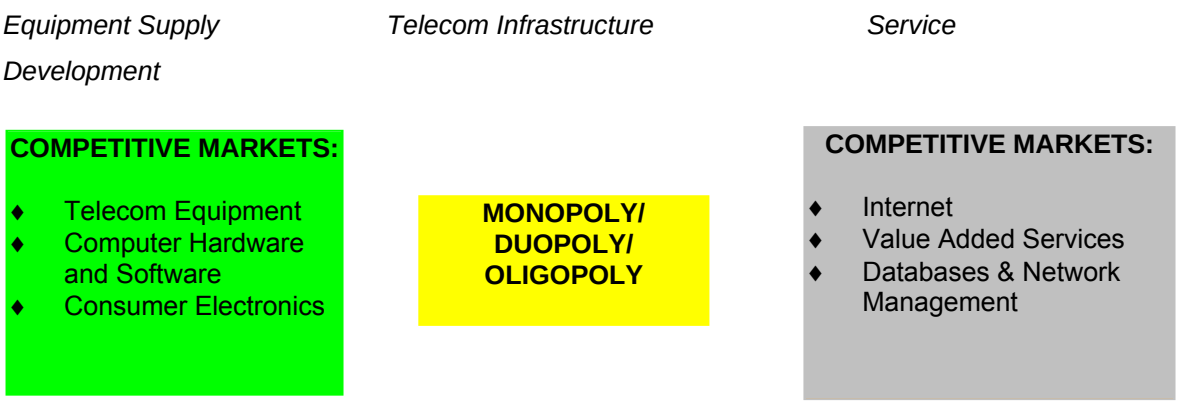

Figure 3.1 Telecom Sector Value Chain

Source: Adapted from Melody (1997)

The telecommunications industry converted the monopoly (Telstra) into a duopoly (Telstra and Optus) then into three (Telstra, Optus and Vodafone) and in the future perhaps into an oligopoly (Telstra, Optus, Vodafone, Smart Communications Group, Communities Communication Group) or perhaps as the author observes 'groupings of companies (clusters) that are typically world leaders' (BRW, September, 2002; Strategic Direction, 2003) in competitive equipment supply markets and or telecom infrastructure and or competitive service development sectors as shown in the middle section of Figure 3.1

Major transformation has occurred in the PTO changing from a monopolistic enterprise, the Australian Telecom sector is now duopolistic and in future perhaps oligopolistic or be composed of key cluster groups. Another future cluster grouping is the competitive suppliers that have also come from internet service providers, value added service networks (VAS), database services and network management. For example, Advance Services started to grow in the 1980s (Wellenius & Stern 1994) and introduced services such as 'analog & digital, bandwidth, compression, protocols, codes and bits provides a basis for comprehending technologies such as high speed digital services, convergence and wireless networks' (Dodd 2000:3).

Telecommunications has served for decades as an old analogue public network and is being replaced by digital networks and new cellular services (Horrocks & Scarr 1993: preface). Telephony is now seen as an independent service involving the convergence of telecommunications, data processing, cable industries and of different services (Andersson & Mlleryd 1997:453; Baldwin, Mcvoy & Steinfield 1996) such as cellar networks.

> Telecommunications are expanding into new innovative markets such as value-added services and super highways markets where companies are able to enter into joint venture arrangements and now Telecommunications companies are installing optical fibre systems with huge capacities and relatively low bandwidth costs which can cater for a range of telecommunications, entertainment and educational programs. (Cox 1998:33)

In telecommunications, a network is a:

> …spider web system of interrelated elements that are interconnected in a dedicated or switched linkage to provide local or remote communication (example of voice, video, data). Specialised network companies can possess set of switches, circuits, trunks and software that make up a telecommunications facility that provide a particular service such as PSTN (public switch telephone network, a collection of interconnected systems operated by various telephone companies and administrations) and PSDN (public switch data network, the collection of interconnected systems that provides anyone served by the public network operator with a range of data services). (Norris, 2000: 156, 189)

Gomes-Cassares (1994) views strategic alliances as networks, clusters, constellations and virtual corporations, and sees them the same as groups of companies joined

together in a larger, overarching relationship. More and McGrath, seemed to be certain about the telecommunications 'industry plans for the three carriers – Telstra (preferred supplier arrangements), Optus (strategic partners) and Vodafone (strategic partner) – do generally provide for the development of strategic alliances with key suppliers' (1996:2).

The twin forces of technological innovation and a growing demand for liberalisation and privatisation has also led to big changes in the telecommunications sector structure in most industrial nations. Today, the unifying strategic goal of telecommunications, information technologies and entertainment sectors of the industry are becoming more integrated through convergence concepts. Strategic convergence networks have shaped the information superhighway that affects our work and play in this new millennium. Major telecommunications companies such as Optus and Telstra tend to use convergence concepts and offer bundling services such as home telephony, mobile telephone, internet connections and entertainment (Telstra 2001; Optus 2001).

In the telecommunications industry, as projected by Carlson (1996:80) as an information superhighway, the industry's equipment makers are now working hand-in-hand with customers/suppliers and even with competitors from rival industries. This is because firms seek for Inter-corporate synergies for the development of business collaboration as a means of survival and by partnering with overlapping companies, tend to achieve greater penetration of a single geographic area achieving better cash flow. At present, the Bureau of Transport and Communications Economics tends to take a more conservative viewpoint about forecasting Australian telecommunications as an information superhighway.

Information superhighway (telecommunications technologies servers) systems tend to develop:

> …clusters because clustering cuts the cost per subscriber since existing cable systems are better utilised through sharing programming content with alliance partners from communications, information and entertainment sectors of the information superhighway industry for efficiency, cooperation and competitiveness. (Carlson 1996:9)

The computer and telecommunications industries are merging and shaping a new industry that is based on competition, appropriability regimes and alliances (Carlson 1996:9). Currently the importance of telecommunications has become a political, economic and social concern of many nations especially Australia.

New generations of communications systems and services are also being conceived by the ever-growing demands of the market place (van Marrewijk 2004). 'In the post … divesture world, telecommunications services are provided by a variety of vendors in diverse combinations of substitute and complementary goods' (Economides 1994:227).

In the telecommunications industry, global alliances are forming with varying degrees of success. In the future, partners will change, new alliances will form and constellations of alliances will compete (Raphael 1998:32-36). Moreover, there is intense competition in the global market, especially in the telecommunications industry (Brown & Pattinson 1995; Melpoment 1997; Strategic Directions 2003, 2004; van Marrewijk 2004). The telecommunications industry will only grow in importance to businesses and individuals. In the future, businesses in the industry will 'transform into a web of new relationships through alliances and knowledge networks' (Raphael 1998: 32-36).

The market place has become intensively competitive, complex about partnering and strategic alliances especially in the telecommunications industry. Proposed alliances like that between Optus and Foxtel combine different industries (telecommunications and cable television) into one market - the telecommunications/entertainment market. Also due to deregulation, firms are being forced to examine different means/strategies

for retaining their competitive advantage, for example: LG Semicon is planning a move with Hitachi to start commercial production in Malaysia in 1998. (Newman & Chaharbaghi 1996:852). Also knowing that many companies still struggle in building relationships or creating alliances internally between the silos of their own company instead organisations tend to create alliances with their major competitors (Bromberger & Hoover 2003)

3.3 Conclusion

In conclusion, telecommunications in Australia has been transforming itself through ever increasing sophistication in technologies from cables to radio voices, wireless networks, entertainment and video imaging, with many more technological inventions to come. As a result, many firms even from different industries tend to form alliance networks to provide 3G systems (voice, video calls, broadband speed mobile access, video conferencing, access to personal and mass media, and application downloading) because no single firm has all the technologies to provide 3G systems. There is considerable evidence (Gomes-Cassares 1994; More & McGrath 1996; McArdle 1997; Deering & Murphy 2003) that these alliance networks are a common structure among telecommunication companies. Therefore, creating an alliance/partnership can be an attractive option for organisations to enhance their capability, resources or effectiveness in-search of creativity and technological know-how to see the world in a new way (Abell 1993). A main purpose of this research is to determine what factors enhance or inhibit their success. These are explored in the next chapter.

Finally, since global strategic alliances are one of the most significant and recent developments in the telecommunications industry they have also impacted the Australian telecommunications industry. The critical changes in the Australian telecommunications industry were covered in this research to move strategic mindsets towards considering what the cooperative factors in strategic alliances are.

CHAPTER 4: CONCEPTUAL FRAMEWORK

4.1 Introduction

The development of a conceptual framework is arguably the most important part of any research (Veal 2005). Therefore this chapter presents a conceptual framework for this study and framework of variables. The aim of the research study was to determine the relationships that exist between six core cooperative factors identified in the literature review and two measures of performance effectiveness in strategic alliances that of sustainability of the alliance and success of alliance. Size of the company (respondent to this research) was a moderating factor in this study.

4.2 Conceptual Framework of Study

The conceptual framework of this research study began initially through the study of antecedents of Figure 4.1 including the development of the Australian telecommunications industry (described in Chapter 3, of Table 3.1) and analysis of cooperative factors critically attained from the literature (analysed in Chapter 2, Table 2.3). Effectiveness and failure factors of strategic alliances were included in the derivation of the cooperative factors. Creativity and innovation has strongly influenced the telecommunications and technologies industries to converge over the past 32 years. This is supported by the OECD (1995) and Picot (2006) that the convergence of telecommunications and information technology has been evolving from mechanical to digital switching systems, where 'Australia is now ringed by high capacity optical fibre' (McArdle 1997; Picot 2006) and wireless systems are available to make life with communications much easier and simpler, (e.g. coined by the name LifeWorks@Com

by Siemens) (Picot 2006) has also prompted this study to choose Australian telecommunications.

The purpose of this research is to contribute to knowledge and significance of strategic alliances, and the cooperative factors that contribute towards effective alliance success as explained in Chapter 1 and Chapter 2 of this study.

Cooperative satisfaction factors have been developed through the study of failure factors shown in Table 2.2 of Chapter 2 of this thesis and of critical factors in Table 2.3 of Chapter 2 as well that supported the value of cooperation and at least one other relationship factor.

The variables and outcomes of this conceptual research study shown in Figure 4.1 and detailed further in Figure 4.2, as the framework of variables. The purpose of this study is the examination and clarification of the practical nature of alliances and assessment of which of the six cooperative factors lead to effective strategic alliance success. Two supplementary questions are posed. Does sustainability imply that the alliance is effective? Does the moderating factor (size) indicate a significant factor to the relationship between cooperative factors and effectiveness of strategic alliances?

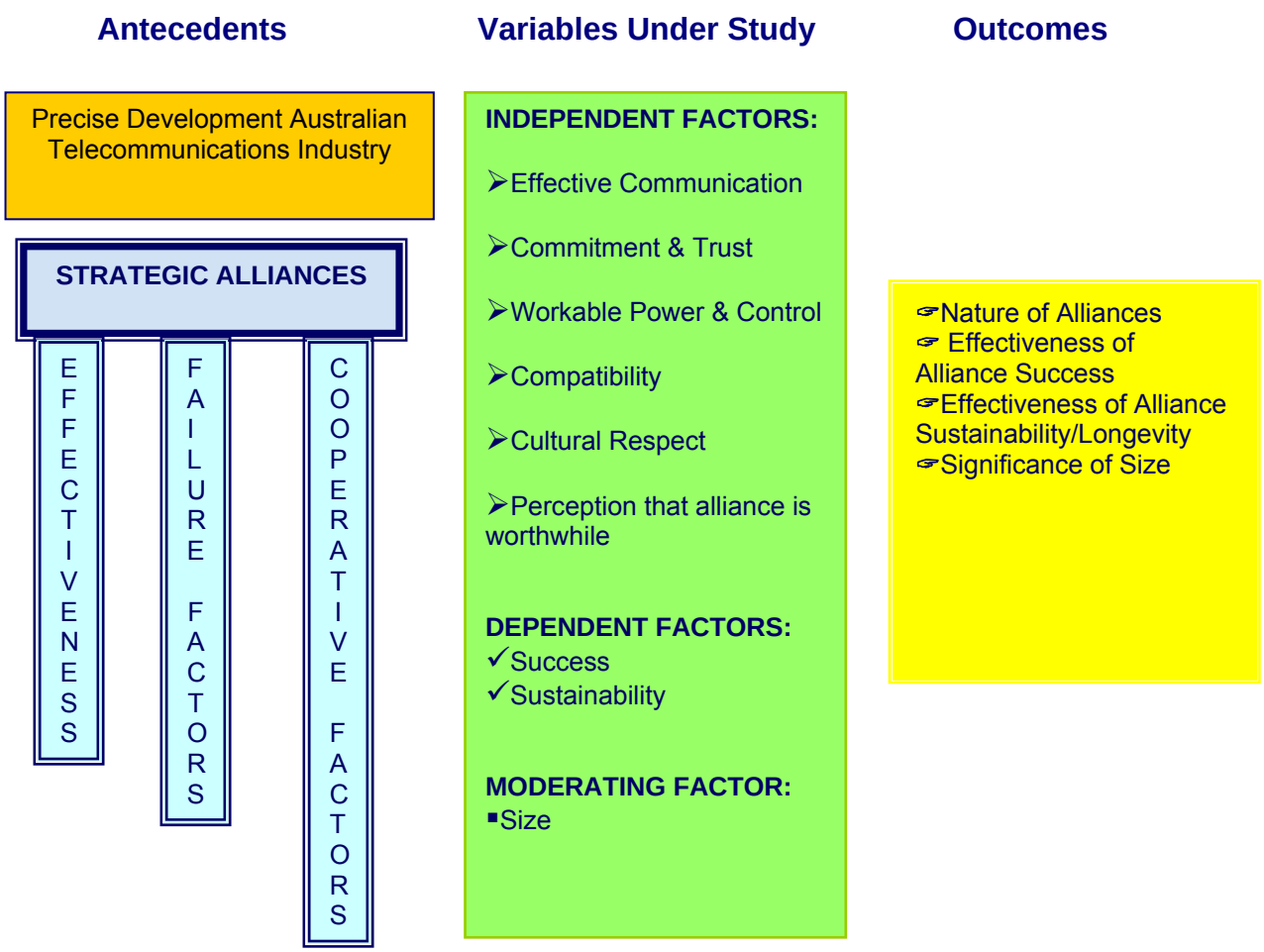

Figure 4.1 Conceptual Framework of Study

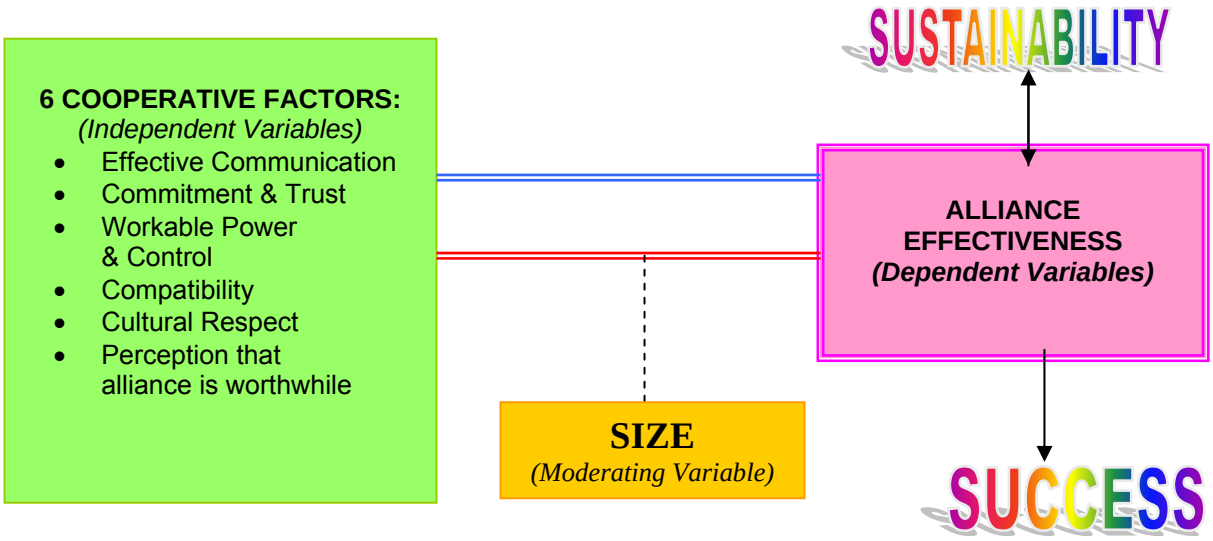

Figure 4.2 Framework of Variables

4.3 Framework of Variables

The framework of variables for this research (Figure 4.1) proposes that there is a relationship between the six cooperative factors and alliance effectiveness which is defined in this study as inter-firm cooperative linkages that have some form of arrangement/s to achieve what needs to be achieved successfully between two or more independent firms in the relationship. Success of the effective alliance and/or that of sustainability (duration of the alliance) are the dependent variables for this study. Size being the moderating factor, has impact on the alliance relationship.

4.3.1 Independent Variables.

The independent variables for this research study were six cooperative factors critically selected from the literature review as factors important in cooperative relationships. The six cooperative factors are defined in this study follow and referred to in Chapter 2.

4.3.1.1 Effective Communication

Effective communication is open communication between the alliance parties to solve problems amicably, and share information in coordinating and collaborating activities to achieve common goals. An example would be regular ongoing meetings between the parties to share issues and resolve them.

4.3.1.2 Commitment and Trust

Commitment and trust refers to alliance partners being committed to specified alliance goals and ensuring they trust each other in the relationship to carry out their alliance responsibilities. These are taken to be similar to one another and are much supported in the literature review chapter. In this study commitment and trust are focused towards trust which is the confidence that the contract or agreement (verbal or written) will be carried out by a person or organization. An example of this is where alliance management of one party commits to the other party and develops and exhibits high levels of integrity. Trust builds commitment.

4.3.1.3 Workable Power and Control

Power and control refers to where each party shares equal power and control in negotiations and decision-making. These are taken as complimentary to one another therefore workable power and control is focused towards the balance of power of the relationship involved in a negotiation and decision-making in the relationship. An example of this would be each alliance party possessing specific roles, accountabilities and authorisations to conduct alliance specific activities, including the management of staff. In negotiating with the alliance party there has to be mutual agreement in decision-making.

4.3.1.4 Compatibility

This study defines compatibility to mean existing together with similarities through the complementary skills and goals that promote a synergistic relationship, although there may be independence in their own key area of competitive advantage. For example one party may have intellectual property in IT skills and the other party has technical expertise in IT to implement the intellectual property.

4.3.1.5 Cultural Respect

Cultural respect in this study is the positive regard to values, beliefs and norms, that means respecting one another's beliefs, values and practices. Each party should respect one another's ethical standards, and organisational cultural differences. An example of cultural respect could be where one party respects the others practice of a 19 day month whereas the first party employs flexible working hours.

4.3.1.6 Perception that Alliance is Worthwhile

The perception that an alliance is worthwhile in this study is subject to the alliance adding value to both organizations. Alliance worthwhileness means both parties benefit from the relationship. For example where the first party might have not made the same percentage profit as the second party, however, the first party might have gained in terms of knowledge as a value added criterion.

4.3.2 Dependent Variables

Two dependent variables for this research study suggest that sustainability and success are indicators of an effective alliance.

4.3.2.1 Sustainability

In this research study, sustainability is defined as the duration or length of an alliance taken to be longevity of an effective strategic linkage (approximately more than a year). For example a telecommunications party has a two-year contract with an IT technology party.

4.3.2.2 Success

Success is the respondent's perceived satisfaction with the alliance firm's performance perceived tangibly (financial positive outcome) or intangibly (value adding) and contributing to the relationship. Success for one party could be that the alliance has added to its targeted profitability by over 10% while for the other party it has achieved a greater geographic penetration of its products in the areas it was weak in prior to the alliance.

4.3.3 Moderator Variable

A moderator variable moderates the predictive validity of a test (Borg & Gall 1989:629) and qualifies the effects of another variable on behaviour (Leary 1991:341). In this research size of the company, taken to be the number of employees in the company, is the moderator for this study.

4.4 Research Questions Arising from the Literature Review

Key questions that arise from the literature review into alliances are:

- What does an alliance mean in practice?
- Do cooperative satisfaction factors contribute to the success of an effective business relationship?

- Are cooperative satisfaction factors dependent on the sustainability of an effective business relationship?
- Is size a moderating contributing factor to a successful business relationship?
- What needs to be present in an effective relationship?

4.5 Suggested Explanation

In formulating a suggested explanation researchers are testing the theory (Borg & Gall 1989; Saunders, Lewis & Thornhill 2003). This study proposes three assumptions.

Assumption 1: Six cooperative factors are positively related to sustainability of alliance effectiveness.
Assumption 2: Six cooperative factors are positively related to the success effectiveness of the alliance.
Assumption 3: Size of the company may affect the relationship between the six factors and that of success and sustainability of alliance effectiveness.

4.6 Conclusion

The main research focus is to determine whether relationships are in existence between a cluster of six core cooperative factors identified in the literature review and with the two measures of performance effectiveness sustainability and success, with size of the company taken as a moderating factor.

Chapter 5: METHODOLOGY

"If everybody is thinking alike, then somebody isn't thinking" George S. Patton Jr. (cited in Tucker, 2007:4)

5.1 Introduction

The purpose of this applied research is to add to the empirical body of knowledge on the cooperative satisfaction factors that can be applied to enhance effective strategic alliances in the Australian telecommunications industry. This research utilised the triangulation method that used quantitative and qualitative research approaches in this single study to gain a broader understanding of the issues for this study to capture the data. This chapter is structured as Research Methodology; Sources of information; Preliminary Informal Exploration; Pilot Study that consist of professional respondents, resulting changes and development of the final questionnaire; Sampling Frame that consists of selection of sample and procedure; Development of Final Questionnaire, explaining questionnaire design; Interview Case Study; Validity, reliability and generality; Ethical Issues; and Conclusion.

5.2 Research Methodology

According to Veal (2005) research can utilise many types of research methodologies to capture the data required for the research and all of the available methodologies either collect quantitative or qualitative information. This research study has used more than one method (quantitative and qualitative) to gather data and analysed data in more than one way (quantitatively and qualitatively) therefore according to Veal (2005) this research method can be classified as triangulation method because the literature

review, survey and case studies were used in this research. Besides, this research included primary and secondary sources of data. The primary sources of data were the preliminary exploration, a pilot study, the mail survey of actual questionnaires and structured interview case study. The secondary sources of research were found through a comprehensive literature review, which assisted in identifying critical factors that promote the formation and sustainability of cooperative alliances.

5.2.1 Sources of Information

Sources were databases and E-Journals accessed through Emerald, ABI (Australian Business Index), Business Sources Premier, Academic Search Premier, APAFT (Australian Public Affairs) and hard copies of academic journals and books from Melbourne University, Monash University, La Trobe University and Victoria University libraries. Based on a literature review (of Chapter 2) of academic journal articles (Table 2.3) and monographs on cooperative factors the six most commonly occurring factors, or critical factors, in a cooperative relationship were identified as core cooperative factors that contribute to or inhibit the development of a relationship linkage.

Other sources of information included newspapers, Business Weekly, Telecom Daily Lead, telecommunication articles, specialised search engines and Dow Jones Interactive searches to understand, analyse, synthesise and evaluate real life issues for the telecommunications industry. Also used a few useful links from the websites of the Australian Competition and Consumer Commission (www.accc.gov.au); Australian Communications Authority (www.aca.gov.au); Department of Communications, Information Technology, and the Arts (www.dcita.gov.au); Telstra (www.nowwearetalking.com.au); and the World Trade Organization (www.wto.org).

5.2.2 Preliminary Informal Exploration

The preliminary investigation consisted of independent visits with two key companies in the Australian telecommunications industry. Information on the benefits and

cooperative matters in strategic alliances were gathered from informal discussion and observation with linkage managers at Telstra Head Office and Ericsson's in Broadmeadows to evaluate the significance of this study.

5.2.3 Pilot Study

Towards mid 2000 with the aid of thesis supervisors who have a behavioural science background and by further reading on quantitative and qualitative analysis the researcher designed a questionnaire. This method of data collection based on Zikmund (2000), de Vaus (1991), Sekaran (1992), Foddy (1994), Clifford (1997) and Knight (2002) provided basic standard principles of good questionnaire design. Bias in the research was minimised by using standard questions of appropriate length, language, ensuring the respondents were likely to have the necessary knowledge of the subject matter, and proper sequencing of questions using the behavioural research approach of Leary (1991).

After preliminary informal exploration, a pilot study was conducted to test the design of the questionnaire. It was tested with six participants who were selected because of their expertise in research design or the telecommunications industry.

5.2.3.1 Professional Respondents

The six pilot questionnaires were tested with academics including a professor in telecommunications research, two alliance managers from major telecommunications companies (Telstra and Ericsson) and a pharmaceutical research divisional manager from the Commonwealth Serum Laboratory (CSL).

The researcher verified and validated the pilot questionnaire with supervisors and against the checklist (Litwin 1995) shown in Table 5.1.

Table 5.1 Litwin's Checklist for Testing the Pilot Study

Are there any typographical errors? Are there any misspelled words? Do the item numbers make sense? Is the type six big enough to be easily read? Is the vocabulary appropriate for the respondents? Is the survey too long? Is the style of the items too monotonous? Are there easy questions in with the difficult questions? Are the skip patterns too difficult? Does the survey format flow well? Are the items appropriate for the respondents? Are the items sensitive to possible cultural barriers? Is the survey in the best language for the respondents?

Source: Litwin (1995:68).

The time for each respondent to complete the questionnaire was reduced from 20 minutes (pilot study) to approximately 10 minutes (actual survey). This was done in order to be time efficient from the perspective of the respondents. Professional respondents also recommended a reduction of time required for completion of the questionnaire.

The result of the pilot study was to change the formal questionnaire (see Appendix 1) to portrait format rather than landscape format because professional respondents advised that it would be easier to read in portrait format rather than landscape format. Changes were also made to phrases in some of the questions and the scaling method changed in some questions from percentages to Likert type scale (Totally, For the most part, To a moderate degree, To a small degree, Not yet) for questions five to eleven. Questions one to four had a slight inconsistency in the Likert scaling because of its difficulties in ranking (for example Question 1 asking for the title or position of respondent was difficult to rank the answer as (Totally, For the most part, To a moderate degree, To a

small degree, Not yet). So Question 1 was ranked in Likert scaling of four instead of five using a social research basis that measured qualitatively rather than quantitatively as supported by Knight (2002:116; de Vaus 1991). Therefore a four-point scaling was used for questions 1 and 3 and a three-point scaling was used for questions 2 and 4.

The Likert technique was used because it is usually the easiest method of developing scales needed in this research project (Borg & Gall 1989:312) and recent work (Knight 2002) suggests that Likert-type scales can be used to measure specific behaviour by the individual checking one of the five possible responses indicating a specific behavioural attitude. Sometimes Semantic Differential is used to assess attitudes (Borg & Gall 1989:311) as indicated by using the 5 point scale descriptive ranges.

5.3 Sampling Frame

The target population was 120 telecommunication companies (36 were licensed carriers and the remainder were non-licensed carriers) restricted to Victoria so as to minimise travel cost and time factor required to conduct the research survey and make follow-up calls, if needed. The companies all had linkage relationships with another customer or supplier.

The population was identified from a variety of sources: Yellow Pages, White Pages and on-line searches, Australian Bureau of Statistics, Australian Communications Authority, The Business Who's Who of Australia, Centre for Telecommunications Information Networking, Dow Jones Company industry search, Australian Business Index and also made enquiries to the Telecommunications Industry Association.

The surveyed companies were licensed (Appendix 9) or unlicensed telecommunications carriers. Licensed carriers were then registered with the Australian Communications Authority (ACA) then but now they have to be registered with the Australian

Communications and Media Authority (ACMA) because of the merger of ACA and ABC in 2005. A carrier license are persons who own specific infrastructure facilities - 'network units' (such as line links connecting distant places in Australia where the line link meets certain minimum distance requirements; satellite-based facilities used to supply carriage services between two or more points in Australia; base stations used for mobile services or wireless local loop services; and certain fixed radio communications links) and comply with the telecommunications access regime. Non-registered carriers can be service providers who are not subject to licensing requirements but are required to comply with legislated service provider rules and other provisions of the Act, such as operator and directory assistance services, itemized billing and number database information.

Table 5.2 Sample of 120 Companies for Mail Survey

Sample of 120 companies for mail survey in this research study	
Percentage of Licensed Carriers With Linkage Partners	**Percentage of Non-Licensed Carriers With Linkage Partners**
30% (36) companies surveyed	70% (84) companies surveyed

5.3.1 Selection of Sample

Out of the population of 120 licensed telecommunication carriers (listed in the Australian Communications Authority website) within Australia from July 2001- October 2003, this research study sampled 30% (that is covered 36 companies) of the licensed telecommunication carriers mainly located in Victoria and the other 70% of licensed carriers listed by the Australian Communications Authority website (http://www.aca.gov.au/aca_home/obliquelicensing/telcomm/app_forum/spo.htm) (Sixty percent of the listed licensed telecommunication carriers have Head Offices in Sydney,

with 10% in Queensland, Western Australia, Central Australia and South Australian) Telecommunication carriers tend to be very volatile. Although Sydney has the majority of telecommunication carriers' Head Offices, this research is targeted towards telecommunications carriers operating in Victoria.

The other 84 companies surveyed were non-licensed telecommunication carriers such as service providers of which 90% have been or were mainly located within Victoria and 10% from Sydney that responded to participate in this survey.

The companies were identified through phone calls and screening to find the ones that have alliances/linkages or relationship arrangements with customers/suppliers. The sample consists of 30% telecommunication licensed carriers and 70% of non-licensed telecommunication carriers. Results obtained represented 100% of the 36 telecommunication-licensed carriers and 32% of the 84 non-licensed carriers.

5.3.2 Procedure

A letter (Appendix 2) was sent to managing directors via secretaries requesting vendor, alliance or linkage managers to complete the questionnaires within three weeks and to mail back the questionnaire to the researcher in a self addressed and stamped envelope.

The response rate was very low (only 9 respondents from licensed carriers and zero from non-licensed carriers), resulting in concern for sample error, bias and size for analysis (Sudman and Blair 1999; Zikmund 2000; Robson 2002).

The researcher then telephoned (Round 2) and reinforced the significance of this research and requested the non respondents (111 telecommunication businesses) to complete the survey, and then sent a follow-up letter this time using University's letterhead, added colour to the questionnaire (Appendix 3) which was posted (with a self addressed envelope) and made follow-up reinforcement phone calls. This resulted

in a better response rate of 54 respondents of which 27 were from licensed carriers and the other 27 were from non-licensed carriers.

A mail survey was used in the initial stage as an inexpensive way of gathering information but proved to generate insufficient responses. This substantiated Simmonds (2000) who commented that mail questionnaires produce a lower response rate than personal interviews. Also mail questionnaires are much more difficult to control who fills out the questionnaire regardless of who the questionnaire was targeted towards (de Vaus 1991).

The follow-up calls were made using incentive effective techniques 'like follow-up letters, enclosing some small monetary incentives' as advised by Sekaran (1992:201). In this case mail drop-ins included minty lollies (Pattison & Robins 2002).

Since Round 1 and Round 2 sample testing was from the same subset, the researcher has taken the response rate as a combination of both rounds testing equivalent to 63 respondents (9+54) for this thesis. As a result a response rate 52.5% (9+54=63/120) of the 120 telecommunications carriers (licensed and non-licensed carriers) were collected through a mailing survey with network means. Excel and SPSS software were used to process the quantitative data analysis from questions 1-11 of the questionnaire.

5.3.2.1 Qualitative Interviews

Only three in-depth interviews (one-hour interviews) were conducted with willing respondents (1 major licensed telecommunication carrier and 2 non-licensed telecommunication service companies) that participated in the in-depth, face-to-face interviews contributing to a case analysis for this thesis. Interview questions were designed with the aid of supervisor before analysing the survey responses.

Three interviews were conducted because respondents marked yes for question 17 of the questionnaire and were willing to participate in a one-hour interview process. The

interview process was structured and interview transcripts were coded and analysed independently by the researcher and co-supervisor. Only one respondent was willing to have the interview recorded on tape and transcribed by the researcher. The other two respondents were not willing to have the interview recorded on tape due to sensitivity of the matter that they were customer/supplier or in alliances with one another. As a result names of companies could not be clearly disclosed in this report.

5.4 Development of Final Questionnaire

5.4.1 Details of Final Questions

The final questionnaire is shown in Appendix 3. The questionnaire structure was based on the standard guidelines of good questionnaires with both an open-ended and closed question design minimising the effect of bias in the research (de Vaus 1991; Sekaran 1992; Zikmund 2000; Knight 2002 and Robson 2002).

5.4.2 Questionnaire Design

The questionnaire consisted of 17 questions and the general thrust of each question is detailed below.

Question 1 identified the position of the respondent. Question 2 identified the size of their company in terms of the number of employees in the business.

Question 3 asked the respondent about the length of their alliance, in other words the sustainability of the respondent's alliance.

Question 4 asked for the type of cooperative relationship between alliance firms whether it has been informally carried-out (no equity sharing), formally carried-out (equity sharing) or if any other type to specify.

Question 5 of the questionnaire rates the success of the alliance relationship between the customer and supplier.

Question 6 is subdivided into three parts which all seek to measure the significance of communication in cooperative alliance practice.

Question 7 is subdivided into three parts as well that aggregate to provide a measure of the significance of commitment and trust in cooperative alliance practice.

Question 8 is subdivided into three sections targeted to measure workable power and control in cooperative alliance practice.

Question 9 is subdivided into three sections designed to measure cooperative alliance practice in-terms of compatibility of goal, independence and synergy between two parties.

Question 10 is subdivided into three sections and seeks to measure the importance of cultural respect between firms in cooperative alliance practice.

Question 11 is subdivided into three as well and seeks to measure worthwhile-ness of cooperative alliance practice.

Questions 12 to 14 tend to move away from the quantitative Likert scaling measure towards qualitative data collection requesting respondents to suggest other effective alliance factors, to describe alliance practices within Australia, overseas or both, respectively.

Question15 asks for further comments. Question 16 asks whether the respondent would like a copy of the final report on the aggregate results of this thesis and Q17 ask whether respondent would like to participate in a short alliance case study to showcase success as an industry model.

5.5 Interview Case Studies

The second method of collecting data was through three face-to-face interviews (interview questions are shown in the Appendix 4) with one representative from each of three companies. They were a major licensed telecommunications carrier, a small non-licensed carrier and the third was a customer supplier linkage partner for a major telecommunications licensed carrier. The interviews were carried out in a similar manner so as to ensure consistency and reliability from one case to another (Zikmund 2000). In face-to-face interviewing, consideration was given to sensitivity, empathy and ethical issues that were handled with care and subjects were assured that their responses to a questionnaire and interview would be confidential.

One of the anonymous companies is a major licensed telecommunications carrier referred to in this research as company A. The second company is a small telecommunications non-licensed carrier (identified as company B) that is an alliance customer to a major telecommunications carrier and the third company is listed as C: Virtual Communities Group Limited (a non-profit telecommunications/technology group of firms) that acquired GlobalCentre and made the company into one of the top internet services businesses (profit driven) in Australia. It has become iiNet Limited, one of Australia's internet service pioneers offering a variety of internet and communications, dialup, broadband and phone. In the 2005 financial report, iiNet Limited reported that Virtual Communities contributed a loss to iiNet profit.

A designed structured interview questionnaire (shown in Appendix 4) designed with the aid of supervisors was used for the structured interview where field notes and

transcribed interview documents were recorded and revised carefully. The one-hour interview was conducted with each respondent on a one-to-one basis.
As respondents spoke, notes were taken to record responses themes and ideas.

Topics that the interviewees unintentionally or intentionally avoided were also noted. For example, two respondents refused to comment and identify their alliance firms because of competitive sensitivity and the rapid changes in technologies that are occurring in the telecommunications industry.

An interpretative mechanics method (fairly methodical procedures flagging themes and processes were searched and highlighted to develop a pattern of consistency presented in an interview transcript extract matrix form) was used to analyse the in depth qualitative interview responses. This method was used in preference to NUD*IST and NVIVO because the mechanics method is easy to keep track of and to catalogue the write-up the analysis of the results. Frequencies for recurrent answers from survey questions 12 to 14 (qualitative designed questions) were noted and coded so that each recurrent topic was assigned a number and recurrent themes and issues were then tested and extended in a qualitative research report.

5.6 Validity, Reliability

This research faced difficulty in this area of validity because questionnaires were designed to gather information from individuals especially in the measurement of attitudes and behaviour in relation to cooperative factors. There may be doubts about the true meanings of responses made in surveys, interviews and self reported accounts of behaviour as these are responses given from the perception of the respondent, also supported by Veal (2005). As a result each cooperative factor was broken down into three parts; asking the same factor from a different perspective so as to increase the validity of the survey. As such the study collected quantitative and qualitative information.

In relation to reliability if this research were to be repeated at a later date or with a different sample of variables, different outcomes may be attained because it is measuring social factors, which are perceived factors. Triangulation of the data collection ensured data reliability.

5.7 Limitations of the Study

Based on generalisability any research findings, including this study, can only relate to the subjects involved, at the time and place where the research was carried out. For example, currently this research was conducted in Australia. If the same research method was conducted in South East Asia it may provide different results.
Another limitation of this research was that it only focused on the telecommunications industry, that is a volatile and fast changing market experiencing changes progressively into technology, multimedia, and internet related applications therefore “no industry is astable over time”(Carral & Kajanto 2008:25).

Finally, the number of case studies that were conducted was limited to three because many chief executive officers or top alliance managers are very busy people who shared their time in support and believed in this research study.

5.8 Ethical Issues

In research ethical behaviour is very important as in any other field of human activity (Ticehurst & Veal 1999; Veal 2005). This research complied with the code of conduct for research, which provides guidelines for responsible practice in research and procedures. The Victoria University Human Research Ethics Committee approved this research. A consent form was sent to respondents involved in the research (interviews)

with cover letters giving information regarding the study and a contact number was provided to companies. Confidentiality was insured by aggregation of the data and not reporting levels that could identify individuals.

Ethical issues tend to arise in the design and conduct of research as well as in reporting results. Issues of confidentiality and privacy were paramount in this research and the name of a respondent is only reported with the consent of the subject involved (Kakabadse, Kakabadse & Kouzmin 2002:35).

5.9 Conclusion

This research study used a combination of quantitative and qualitative research methods. Triangulation of the data collection ensured the reliability of the data. Mail survey questionnaire and face-to-face in-depth interview case methods were used to collect data for this study. The findings are discussed in the next chapter.

CHAPTER 6: RESULTS

6.1 Introduction

This chapter presents both quantitative and qualitative data from which the results were obtained. The results from the quantitative data were derived from the analyses of the responses to the closed questions in the survey. The results from the qualitative data were collated from the open questions from the survey and the three case studies, which drew on data obtained in three interviews. There was a link between the survey data and the interview data in that the respondents selected for interview also formed part of the initial survey. The follow up interview was conducted to gather in depth perspective of the telecommunications industry and the practical understanding of alliances being used in the industry, as well as to gather more in depth empirical evidence of the secrets of success of alliances in such a competitive industry as the telecommunications one.

The major issues in defining the telecommunications industry have been found to be the following: competition is fierce, cooperation is significant, the market is volatile, and barriers to entry are weakened through the deregulation of the industry (market) that has become more complex (the borderlines of the traditional telephony, multi-media, cable television, voice communications combining with or bundling with internet technologies have become blurred making it difficult to define 'what is telecommunications?'). According to the telco industry there are possibilities of cluster groups appearing in the near future to confront the fierce competition in a telecommunications market dominated by one or two carriers.

This chapter begins with the quantitative results from the survey: the response rates, a description of the sample (position of the respondents), the size of company of the respondents, length of time/sustainability and nature of the alliance relationship, the

perceived success of the alliance, the responses from the hypotheses, and the results. Following are the qualitative results, which were reported from the open-ended survey questions, combined with the micro-case study of three companies.

6.2 Response Rates

The target population was 120 companies, 36 of which were licensed telecommunications carriers and 84 were unlicensed carriers (explanation on licensed and unlicensed was given in Chapter 5). Table 6.1 shows responses to the survey were received from all of the licensed carriers and approximately one third (32%) of the unlicensed carriers. The overall response rate was 52%.

Table 6.1 Response Rates to the Survey

Type of carrier	Total population (No)	Response % (No)
Licensed	36	100 (36)
Unlicensed	84	32 (27)
Total	120	52 (63)

6.3 Description of the Sample

The questionnaire requested details of the title of the respondent and company size measured by the number of people in the company.

6.3.1 Position of the Respondent

As shown in Table 6.2, 13% of the respondents were Senior Alliance Managers, 21% were Alliance Managers and 38% of respondents were Alliance Supervisors or First-line Managers.

The 'others' (29%), did not hold positions whose title was “alliance” related and did not indicate their position in the survey questionnaire.

Table 6.2 Title of the Position of the Respondents

Title of position	Response % (No)
Senior Alliance Manager	13 (8)
Alliance Manager	21 (13)
Alliance Supervisor	38 (24)
Others	29 (18)
Total	100 (63)

6.3.2 The Company Size of Respondents

The company size was indicated as large, medium and small in terms of the number of people in the company (Table 6.3).

Table 6.3 Distribution of the Percentage and Frequency of the Size of the Company

Size of the company	Number of companies % (No)
Large (100+ employees)	57 (36)
Medium (50-100)	24 (15)
Small (1-49)	19 (12)
Total	100 (63)

Over half the respondents (57%) were representatives from large companies, i.e. those with over 100 employees. Fifteen (24%) were from medium-sized (50-100 employees)

and twelve (19%) were from small companies with number of employees between 1 and 49.

6.4 Length of Time Where Firms Were Involved in Alliances (Sustainability)

The length of time the company had been involved in a strategic alliance with another company indicated alliance duration or sustainability. As shown below 35% of respondents had a linkage relationship of at least 5 years, 32% of the alliance relationships were between 3 to 5 years old. Twenty-eight percent were in a linkage/alliance relationship between 1 to 3 years old and only 5% were less than or equal to a 1-year linkage relationship.

Table 6.4 Distribution of the Percentage and Frequency of Length of Time in Which Firms Were Involved in Alliances

Length of time	Response % (No)
5 years	35 (22)
3 to 5 years	32 (20)
1 to 3 years	28 (18)
Less than or equal to 1 year	5 (3)
Total	100 (63)

6.5 The Nature of Alliance Relationship

The type or nature of alliance relationship between the firm and its partner was indicated as informal, formal and others. The majority of respondents (51%) came from a formal alliance relationship where there was a contract. Forty-one percent of the

respondents had an informal relationship/linkage where there was no concrete evidence of a linkage written down; and only 8% were from others and described as perhaps 'potential' alliance relationships.

Table 6.5 The Frequency Distribution of the Type of Relationship in Alliances

Type of relationship	Response % (No)
Informal	41 (26)
Formal	51 (32)
Others	8 (5)
Total	100 (63)

6.6 Perceptions of the Success of the Alliances

The majority of the respondents (71%) perceived the alliance relationship to be successful; 16% as moderately successful; 10% indicated as totally successful; and 3% perceived success to a small degree.

Table 6.6 The Percentage and Frequency Distribution of the Perceived Success of Alliances

Success of relationship	Response % (No)
Totally	10 (6)
For the most part	71 (45)
To a moderate degree	16 (10)
To a small degree	3 (2)
Not yet	0 (0)
Total	100 (63)

6.7 Frequency Response for Six Cooperative Factors

The study investigated six factors which previous research suggested were important to the success and sustainability of an effective alliance. The six factors were: effective communication, commitment and trust, power and control, compatibility, cultural respect, and perceptions that the alliance was worthwhile. Each factor was measured using three items. Respondents were asked to indicate the most appropriate response that described their alliance practices. The items were measured on a five-point Likert scale, which, for the purpose of discussion, has been collapsed in the following tables to three categories. The frequency tables for each of the six cooperative factors are detailed below.

Table 6.7 Frequency and Percentage Distribution of Responses to the Rating of Effective Communication

Alliance communication between firms	Totally/for the most part % (No)	To a moderate degree % (No)	To a small part/not yet % (No)	Total % (No)
The alliance has open communication to achieve common goals	71 (45)	22 (14)	6 (4)	100 (63)
The alliance raises and solves problems amicably to achieve goals	75 (47)	22 (14)	3 (2)	100 (63)
The alliance shares information in coordinating activities to achieve common goals	65 (41)	30 (19)	5 (3)	100 (63)

The ratings of the communication practices (Table 6.7) showed that 71% of respondents experienced open communication to achieve common goals; 75% of respondents demonstrated that the alliance raises and solves problems amicably to

achieve goals; and 65% of respondents showed that their alliance shares information in coordinating activities to achieve common goals. As a result the majority of the respondents felt that communication between firms in an alliance is an important factor in achieving goals. Further, in response to each of the questions, their responses were high, ranging from 65% to 75%.

When it comes to the aspect of the alliance sharing information in coordinating activities to achieve common goals, 65% felt that was the case either totally or for the most part. The responses also showed that alliance communication between firms was important to a moderate degree for between 22% to 30% of respondents. The importance of communication in an effective alliance was also shown by the low response rate to the rating of alliance communication as playing only a small part or no part at all in alliance communication between firms.

These responses tend to reinforce the precept that communication (in its various forms) is important in achieving common goals and to raising and solving problems amicably. In the absence of this then it would also appear reasonable that the alliance would tend not to function optimally.

Table 6.8 Frequency and Percentage Distribution of Responses to the Rating of Commitment and Trust

Commitment and trust between firms	Totally/for the most part % (No)	To a moderate degree % (No)	To a small part/not yet % (No)	Total % (No)
The alliance has a committed relationship to meet specified goals	78 (49)	17 (11)	5 (3)	100 (63)
Staff in the alliance provides accurate information to meet specified goals	76 (48)	21 (13)	3 (2)	100 (63)
Top management throughout the alliance act with integrity	73 (46)	27 (17)	0 (0)	100 (63)

The ratings of the commitment and trust (Table 6.8) showed that there has to be a high level of commitment and top management support and trust between firms for an alliance to achieve goals. The responses to each part of this question were quite high, ranging from 73% to 78% for those respondents who felt this was the case either totally or for the most part.

In order to achieve their goals the partners in the alliance were committed to the relationship and exchanged information. Throughout, senior managers acting with integrity, those who felt that this was the case to a moderate degree provided replies of 17%, 21% and 27% respectively, supported the relationship.

When these two responses are added, it is quite clear that commitment and trust are very important ingredients for an effective alliance. In this situation responses were 95%, 97% and 100%. For those who felt that this was the case for only a small part or to a small degree, the responses were either very low or nil.

Table 6.9 Frequency and Percentage Distribution of Responses to the Rating of Power and Control

Workable power and control between firms	Totally/for the most part % (No)	To a moderate degree % (No)	To a small part/not yet % (No)	Total % (No)
The cooperative linkage shares equal power and control in negotiations	62 (39)	25 (16)	13 (8)	100 (63)
The companies in the alliance have equal power and control in decision making	40 (25)	43 (27)	17 (11)	100 (63)
The companies in the alliance have mutual power and control	43 (27)	40 (25)	17 (11)	100 (63)

The majority of the responses (Table 6.9) to this were in the range totally/for the most part and to a moderate degree. Most of the respondents felt the cooperative linkage shares equal power and control in negotiations (62%); but a sizeable percentage also felt that this was important to a moderate degree with a response of 25%. There were others who felt that this was important to a small degree or not yet (13%).

Most of the respondents did not feel that they had totally/for the most part equal power and control in decision making, as this is represented by those who replied to a moderate degree (43%) being higher than those who replied to totally/for the most part (40%). A small number of respondents felt that equal power and control existed between alliances not yet or to a small degree, that is 17%.

However, a slightly higher number felt that it was more important that companies in the alliance have mutual power and control totally/for the most part (43%) than those who felt this way to a moderate degree (40%). Similarly, as in the second question in this item, a sizeable number (17%) felt this was important to a small degree/not yet.

Table 6.10 Frequency and Percentage Distribution of Responses to the Rating of Compatibility

Compatibility between firms	Totally/for the most part % (No)	To a moderate degree % (No)	To a small part/not yet % (No)	Total % (No)
There is dependence throughout the alliance to achieve goals	59 (37)	32 (20)	10 (6)	100 (63)
There is independence in our own key area of competitive advantage	71 (45)	17 (11)	11 (7)	100 (63)
Each party in the alliance has complimentary skills to match one another	68 (43)	16 (10)	16 (10)	100 (63)

The ratings of compatibility between firms showed that there appears to be a high level of compatibility between firms in alliances. In the first instance, 59% of respondents felt that there is dependence throughout the alliance to achieve common goals either totally or for the most part, while 32% felt this way to a moderate degree. A small number (10) felt this applied only to a small degree or not yet.

A higher response was given to the question of whether there is independence in a firm's own key area of competitive advantage. Clearly 71% felt this to be the case either totally or for the most part, while only 17% felt this way to a moderate degree and only 11% felt this way to a small degree or not yet.

In a similar manner, there were high responses to the issue of whether each party in the alliance has complimentary skills to match one another. There were 68% of respondents who felt this way totally or for the most part, 16% felt this way to a moderate degree and 16% felt this way to a small degree or not yet. In this area, it

seems that nearly one third (32%) of the respondents felt that each part in the alliance had complimentary skills to match one another to a moderate degree or small degree/not yet.

Table 6.11 Frequency and Percentage Distribution of Responses to the Rating of Cultural Respect

Cultural respect between firms	Totally/for the most part % (No)	To a moderate degree % (No)	To a small part/not yet % (No)	Total % (No)
The cooperative linkage acts in a manner that is consistent with expressed values, beliefs and practices	79 (50)	16 (10)	5 (3)	100 (63)
We both respect one another's organisational culture	79 (50)	17 (11)	3 (2)	100 (63)
We both conform to a mutual ethical standard	76 (48)	21 (13)	3 (2)	100 (63)

The ratings of cultural respect (Table 6.11) showed that cultural respect between firms plays an important role for the success of an effective alliance.

Nearly 80% of all of the respondents felt that cultural respect (in its various forms, through the three questions) was important either totally or for the most part. Those who indicated a lack of cultural respect were in the minority.
The responses from those who felt that it applied to a moderate degree were generally in the range of 16% to 21%. The responses by those who felt it applied to only a small part or not yet were very low.

Cultural respect may have different meanings to different individuals within different companies and this may be reflected in the responses to this item. For example, in the

first part of the question, what is consistent in expressed values, beliefs and practices may vary between companies. Similarly, ethical standards may have different meanings to people and unless they are clearly outlined and explained at the outset, this may cause confusion. It is possible that some of the responses that were to a moderate degree could reflect this.

Table 6.12 Frequency and Percentage Distribution of Responses to the Rating of Perceptions that the Alliance was Worthwhile

Perceptions that the alliance was worthwhile between firms	Totally/for the most part	To a moderate degree	To a small part/not yet	Total
	% (No)	% (No)	% (No)	% (No)
We both benefit from the collaboration of our cooperative linkage	83 (52)	16 (10)	2 (1)	100 (63)
We both support a win-win concept in our relationship	67 (42)	25 (16)	8 (5)	100 (63)
Our mutual benefit outweighs the costs and risks	62 (39)	32 (20)	6 (4)	100 (63)

The ratings of the perceptions that the alliance was worthwhile (Table 6.12) showed that more respondents felt that both alliance partners benefited from collaboration in their cooperative linkage than those who supported a win-win concept and those who felt the mutual benefit outweighs the costs and risks of the alliance. The number of respondents who replied either totally or for the most part was considerably higher at 83% than those whose relationship supported a win-win were 67%. Only two thirds (62%) thought that mutual benefits outweighed the costs and risks of the relationship.

Having said this, there were also sizeable responses from those who provided response rates as to a moderate degree. There were 25% of respondents who felt that they both

supported a win-win concept to a moderate degree and 32% who felt that the mutual benefits outweighed the costs and risks of the alliance. Only 16% of respondents felt that they both benefited to a moderate degree from the collaboration of their cooperative linkages.

For all three questions in this item, the responses from respondents who rated the items as to a small part/not yet were quite low, ranging from 2% to 8%.

Overall, it can be seen that the great majority of the respondents agreed with the perception that the alliance was worthwhile between firms and only a small percentage felt that it was not. With responses such as these it is quite apparent that alliances will continue as long as these perceptions are met.

6.8 Summary of Non Significant Results

It was found there were no significant relationships between 'the type of alliance' and 'size of companies' or 'the success of relationships'; and between 'the size of the company' and 'the success of the relationship'.

Further, there was no significant impact in the relationships found between 'the size of the company' and that of 'alliance communication between firms'. The same was found for the issue of 'size of the company' and 'commitment and trust between firms'. When it came to the findings between 'size of the company' and 'workable power and control between the firms', there were no significant relationships between two of the subset issues but in one of them, there was found to be a significant relationship, and that was of the 'size of the companies' and 'the alliance that had equal power and control in decision making'. This particular one is discussed in detail under significant relationships that is in discussion Chapter 7.

There was also no significance in the relationships between 'the size of the company' and 'compatibility between the firms'; between 'the size of the company' and 'cultural respect between firms'; and between 'the size of the company' and 'the alliance is perceived as worthwhile between firms'.

When the results of the survey between 'the length of time (sustainability) that a company has been involved in strategic alliances' and 'alliance communication between firms', were reviewed, the survey results showed no significant relationships. The survey provided similar results to the relationships between 'the length of time that a company has been involved in strategic alliances' and 'commitment and trust between firms'; between 'the length of time that a company has been involved in strategic alliances' and 'workable power and control between firms'; and between 'the length of time that a company has been involved in strategic alliances' and 'compatibility between firms'. When we examined the relationship between 'the length of time that a company has been involved in strategic alliances' and 'cultural respect between firms', we found that there was no significant relationship between two of the sub-categories of cultural respect between firms but there was a significant relationship between 'the length of time that a company has been involved in strategic alliances' and 'the cooperative linkage acts in a manner that is consistent with expressed values, beliefs and practices'. This significant relationship is discussed in detail in the next section below. Finally, there were no significant relationships found between 'the length of time that a company has been involved in strategic alliances' and whether 'the alliance was seen as worthwhile between firms'.

Through examination of the results of the survey it was found that no significant relationships existed; between 'the type (nature) of the alliance' and that of 'alliance communication between firms'; between 'the type(nature) of the alliance' and 'commitment and trust between the firms'; between 'the type(nature) of the alliance' and 'workable power and control between firms'; between 'the type(nature) of the alliance' and 'compatibility between firms'; between 'the type(nature) of the alliance' and 'cultural

respect between firms'; and between 'the type(nature) of the alliance' and 'alliance is perceived as worthwhile between firms'.

The significance of the results of the survey between whether the alliance is perceived as successful and six of the cooperative factors proved interesting. Though the majority of the survey results showed that there were no significant relationships between perceived success of the alliance and the 6 cooperative factors, one core independent factor was found to be significant. Firstly, the results of whether 'the alliance relationship is perceived as successful' and 'alliance communication between firms' revealed one minor instance where there was no significant relationship between that and alliance communication between firms, and this was in the subcategory response of 'the alliance has open communication to achieve common goals'. In the other two sub-categories of responses of alliance communication, it was found that there were significant relationships between 'the alliance relationship is perceived as successful' and 'the alliance raises and solves problems amicably to achieve common goals'; and between 'the alliance relationship is perceived as successful' and 'the alliances shares information in coordinating activities to achieve common goals'. These are discussed in detail in the discussion chapter.

Finally the survey found that there were no significant relationships between 'the alliance is perceived as successful' and between 'commitment and trust between firms'; between 'the alliance is perceived as successful' and 'workable power and control between firms'; between 'the alliances is perceived as successful' and 'compatibility between firms'; between 'the alliance is perceived as successful' and 'cultural respect between firms'; and between 'the alliance is perceived as successful' and 'alliance is worthwhile between firms'.

6.8.1 Results of the Relationship Between the Type of Alliance

There were only four situations where the results showed significant relationships between the dependant and independent variables to support the assumptions of this thesis (shown in Chapter 4). As shown in the following tables and with an accompanying description of each result, the factors of significance occurred in four incidences.

Table 6.13 Cross-tabulation of the Relationship Between Length of Time (Sustainability) in Which Firms Were Involved in the Alliance and the Cooperative Linkage Acts in a Manner that is Consistent With Expressed Values, Beliefs and Practices (Cultural Respect)

Length of time in strategic alliance	Totally/for the most part %	To a moderate degree %	To a small degree/not yet %	Total % (No)
5 Years	24	10	1	35 (22)
3+ and up to 4 years	27	5	0	32 (20)
Less than or equal to 1 year	1	0	0	1 (1)
Not yet	3	0	0	3 (2)
Total	79	17	4	100 (63)

Note: Chi Square Results: $x^2=31.89$; d=16; $p \leq 0.05$.

From the responses in the above table (Table 6.13), 35% of the sample was in an alliance relationship for 5+ years and 32% for 3-4 years. Seventy-nine percent of the respondents believed that their alliance relationship reflected consistency in values, beliefs and practices.

There is a significant relationship (chi-square = 31.9, d = 16, and $p \leq 0.05$) between the 'length of time in which firms were involved in the alliance, 'and the 'cooperative linkage acts in a manner that is consistent with expressed values, beliefs and practices'.

The results revealed that a further 17% of companies expressed the belief that cooperative linkage acts in a consistent manner with expressed values, beliefs and practices to at least a moderate degree. Also, 34% of companies who had been in strategic alliances for 5 years expressed this, 32% of companies who had been in alliances for 3 to 4 years expressed this and 25% of companies who had been in alliances for 1 to 3 years expressed this. It is interesting to note that most of the responses were in the categories of 'for the most part' and 'to a moderate degree'. Seventeen percent of all companies expressed that cooperative linkage acts in a manner with expressed values, beliefs and practices across all length of relationships to a moderate degree; 79% expressed that cooperative linkage acts in a manner consistent with expressed values, beliefs and practices 'totally/for the most part'; and only 4% of respondents from companies expressed the belief that their cooperative linkage was not consistent with values, beliefs and practices.

There was also an interesting response from 3% of the companies in that the respondents created their response category whereby they responded with a 'not yet' length of time in strategic alliance where cooperative linkage acts in a manner consistent with expressed values, beliefs and practices 'for the most part'. While this response rate is quite small, it poses the issue of why some respondents felt that 'for the most part' cooperative linkage acts in a consistent manner with expressed values, beliefs and practices where there has not yet been a strategic alliance. It is possible that these respondents had dealings with other managers in other organisations where the cooperative linkage acted in this way for the most part for possibly specific types of projects. While this was not given as a reason, it is common practice for companies to work together for quite short periods of time but they do not classify this activity as a strategic alliance.

Table 6.14 Cross-Tabulation of Our Alliance is Successful and Alliance Raises and Solves Problems Amicably to Achieve Common Goals (Effective Communication)

Alliance relationship is successful	Totally/for the most part %	To a moderate degree %	To a small degree/not yet %	Total % (No)
Totally	8	0	1	9 (6)
For the most part	61	10	1	72 (45)
To a moderate degree	6	10	0	16 (10)
To a small degree	0	3	0	3 (2)
Total	75	23	2	100 (63)

Note: Chi Square Results: x^2=40.86; d=12; p≤0.001.

The results (Table 6.14) show that alliances are seen to be perceived as successful for 'totally/for the most part' (75%) and 'to a moderate degree' (23%) when the alliance raises and solves problems amicably to achieve common goals 'to a moderate degree' and 'totally/for the most part' (accounting for 98% of responses).

There is a significant relationship (chi-square = 40.9, d = 12, and p ≤0.001) between 'alliance is successful' and the 'alliance raises and solves problems amicably to achieve common goals'.

The results revealed further that in 98% of companies, the alliance raises and solves problems amicably to achieve common goals to at least a moderate degree. Also, 8% of companies expressed this was done totally, 71% of companies expressed this was done for the most part and 16% of companies expressed this to a moderate degree. Very few responses (only 3%) indicated that the alliance raises and solves problems amicably to achieve common goals to a small degree.

Table 6.15 Cross-Tabulation of Our Alliance is Successful and Alliance Shares Information in Coordinating Activities to Achieve Common Goals (Effective Communication)

Alliance relationship is successful	Totally/for the most part %	To a moderate degree %	To a small degree/not yet %	Total % (No)
Totally	8	0	1	9 (6)
For the most part	51	19	1	71 (45)
To a moderate degree	7	10	0	17 (10)
To a small degree	0	1	2	3 (2)
Total	66	30	4	100 (63)

Note: Chi Square Results: x^2=30.37; d=12; p≤0.001.

Nearly all of the respondents, 96%, shared information (Table 6.15), but only 80% reported that their alliance was successful 'totally' or 'for the most part'.

The sample respondents shared information in coordinating activities to achieve common goals and this was expressed as the alliance was seen as successful 'totally/for the most part' and 'to a moderate degree'. The responses show that 96% of the survey participants felt that the alliance was successful 'totally/for the most part' and 'to a moderate degree' across all categories of the 'alliances shares information in coordinating activities to achieve common goals'.

The results revealed further that 96% of respondents expressed the belief that the alliance relationship was successful to at least a moderate degree and when the alliance shares information in coordinating activities to achieve common goals. Also, this was expressed at 9% for alliances that were seen as totally successful, at 71% of

alliances that were seen as successful for the most part and at 17% of alliances that were seen as successful to a moderate degree. In fact, the largest response (51%) was from those who felt that alliance relationships were successful for the most part and when an alliance shares information in coordinating activities to achieve common goals to at least 'a moderate degree' (19%).

The characteristics of companies with unsuccessful alliances were those who did not share information 'totally/for the most part' in order to coordinate activities to achieve common goals. Where the information was shared to a small degree or no sharing occurred, the alliance was not perceived to be a success. An unsuccessful alliance is one where the parties are not prepared to share information or share very little in order to achieve common goals.

Table 6.16 Cross-Tabulation of the Relationship Between Size of Company and Companies in the Alliance Have Equal Power and Control in Decision Making (Power and Control)

Size of companies	Totally/for the most part %	To a moderate degree %	To a small degree/not yet %	Total % (No)
Large (101+)	19	25	13	57 (36)
Medium (50-100)	15	5	3	23 (15)
Small (1-49)	5	13	2	20 (12)
Total	39	43	18	100 (63)

Note: Chi Square Results: x^2=16.92; d=8; p≤0.05.

The purpose of the cross-tabulation is to determine if the responses from each sized of company group are different. In an examination of whether respondents felt that companies had equal power and control in decision making, the results from the above table (Table 6.16) revealed the following responses. Fifty seven percent were large companies. Nineteen percent of the sample responded 'totally/for the most part', 25%

responded 'to a moderate degree' and 13% responded 'to a small degree/net yet'. Twenty three percent were from medium-sized companies. Fifteen percent of the sample responded 'totally/for the most part', 5% responded 'to a moderate degree' and 3% responded 'to a small degree/not yet'. Twenty percent were from small sized companies. Five percent of the sample responded 'totally/for the most part', 13% responded 'to a moderate degree' and 2% responded 'to a small degree/not yet'.

The results revealed that 19% of respondents from the large companies believed that in the alliance relationships they had equal power and control in decision-making 'totally/for the most part' and (25%) 'to a moderate degree'. The responses from the medium-sized companies expressed a lower result (only 15% and 5% respectively). Fifteen percent of the sample which were from medium-sized companies reported they had equal power and control in decision-making 'totally/for the most part' in their alliance relationship.

The responses from the large companies expressed the belief that they had equal power and control in decision-making ‘totally/for the most part’ (19%), ‘to a moderate degree’ (25%), and ‘to a small degree/not yet’ (13%). It is an interesting outcome from the survey that respondents from large companies expressed the belief (only 19%) that they had equal power and control in decision-making 'totally/for the most part’. It shows that 15% of respondents from large companies believed they had equal power and control in decision-making either 'totally/for the most part' whereas 25% believed this 'to a moderate degree'.

The results revealed further that 82% of respondents expressed the belief that they had equal power and control to at least a moderate degree. Also, 44% of large companies in the sample expressed this, 20% of medium-sized companies in the sample expressed this and 18% of small companies in the sample expressed this. Eighteen percent of all respondents expressed the belief that they had equal power and control 'to a small degree/not yet' (13% from large companies, 3% from medium companies and 2% from small companies).

Table 6.17 Spearman Rho Correlation Coefficient/Significant 2-Tail

		S2	S3	S4	S5	F1a	F1b	F1c	F2a	F2b	F2c	F3a	F3b	F3c	F4a	F4b	F4c	F5a	F5b	F5c	F6a	F6b	F6c
Size	S2																						
Sustainability/Longevity	S3	.32																					
Success	S5																						
Communication 1	F1a				.36																		
Communication 2	F1b				.45	.66																	
Communication 3	F1c				.35	.65	.60																
Commitment &Trust 1	F2a	-.51				.41	.34	.47															
Commitment &Trust 2	F2b	-.34			.33	.42	.35	.54	.62														
Commitment &Trust 3	F2c							.37	.35	.39													
Power & Control 1	F3a					.45	.35	.50	.37	.42	.43												
Power & Control 2	F3b					.54	.35	.43	.36	.34	.51	.73											
Power & Control 3	F3c					.56		.42	.34	.44	.40	.62	.84										
Compatibility 1	F4a					.65	.49	.69	.50	.38		.39	.49	.46									
Compatibility 2	F4b					.34					.33		.36	.39	.39								
Compatibility 3	F4c					.44		.47			.35	.41	.36	.54	.52	.52							
Culture Respect 1	F5a							.38	.34		.50	.45	.40	.43	.39	.38	.51						
Culture Respect 2	F5b								.36		.48	.36	.35					.70					
Culture Respect 3	F5c							.40	.48	.37	.47	.42	.36	.37	.37			.63	.66				
Alliance Worthwhile 1	F6a					.59			.42	.35	.37	.50	.46	.54	.62	.53	.80	.55	.40	.40			
Alliance Worthwhile 2	F6b							.47	.36	.34	.41		.33	.35				.45	.51	.42	.52	.65	
Alliance Worthwhile 3	F6c					.46	.48	.56	.37	.35	.45	.55	.58	.44	.44					.44	.65	.67	

Notes: 1: $p \leq 0.01$.
2: Only significant correlations were reported.

Table 6.17 shows that size and success have no correlation with any of the other variables, except there is a positive influence of 0.32 significance reported at 0.01, two-tail test significance level between size and sustainability/longevity. There is a negative significance level for size against commitment and trust factors of –0.51 for alliance that has a commitment relationship to meet specified goals and –0.34 for staff in the alliance provide accurate information to meet specified goals.

There is a positive correlation between alliance success and effective communication of 0.36, 0.45 and 0.35 for the alliance having open communication to achieve common goals, alliance raised and solves problems amicably to achieve goals and alliance shares information in coordinating activities to achieve common goals, respectively. There is a positive correlation coefficient for success and commitment and trust 2 (staff in the alliance provides accurate information to meet specified goals) of 0.33 correlation coefficient of 0.01 level.

Most of the 6 cooperative factors do have positive correlation coefficients. There is a very strong correlation coefficient of 0.84 between companies in the alliance have mutual power and control and that of companies in the alliance have equal power and control in decision-making. The second highest correlation is between cultural respect for one another within organisational culture and cooperative linkage acting in a manner that is consistent with expressed values, beliefs and practices and significant at 0.70.

6.9 Qualitative Results

6.9.1 Presentation of Qualitative Findings

Qualitative data was obtained from the survey questionnaire and the case studies. The survey questionnaire incorporated three open-ended questions of a qualitative nature. The case study incorporated ten structured open-ended questions of a qualitative nature. The survey questionnaires and case studies were undertaken at different times

mainly due to the availability of the managers for the case studies. The responses are summarised in the table below.

6.9.2 Results From the Questionnaire

Table: 6.18 Summary of Qualitative Results From Questionnaire Sample

Responses Summary of Q 12: What other factors are of importance for effective alliance?	**Responses Summary of Q 13:** How do you describe your strategic alliance practices?	**Responses Summary of Q14:** Are your strategic alliances within Australia or overseas or both?
• Mutual benefit to alliance parties	Excellent 3% (2)	Australia only 25% (16)
• Value added benefit to alliance parties	Win-win/Good 51% (32)	Australia and overseas 56% (35)
• Alliance parties must produce outcome	Satisfactory but challenging 17% (11)	No comments 19% (12)
• Management of alliance	No comments 29% (18)	Only overseas 0%

6.9.2.1 Other Factors of Importance For Effective Alliances

Question (12) identified other factors of importance for effective alliances besides the 6 factors targeted in this research questionnaire (alliance communication between firms, commitment and trust between firms, workable power and control between firms, compatibility between firms, cultural respect between firms and alliance is worthwhile between firms).

Some respondents reinforced the importance of communications are a linkage variable that had already been identified as one of the factors for success in cooperative linkage between firms. The other variables that were reported to be of importance are shown in

Table 6.18: ‘mutual benefit to alliance parties’, 'value added benefits to alliance parties’, ‘alliance parties must produce outcomes’, and ‘management of the alliance’.

6.9.2.2 Satisfaction With the Alliance Partnership

Qualitative analysis for satisfaction with the alliance partnership was searched through an emerging theme in response to question (13) ‘how do you describe your alliance practice? Only 3 percent of respondents commented that their alliance was excellent. Fifty-one percent indicated win-win or good, 17 percent commented that their alliances were satisfactory and found alliances to be ‘challenging’ and 29 percent of respondents had ‘no comments’.

6.9.2.3 Location of Operation

This research targeted telecommunication companies that operated within Australia but not necessarily only within Australia. The research findings indicated that the majority (56 percent) of the respondents operated within Australia as well as overseas. Only 25 percent of the respondents operated only within Australia. Nineteen percent of respondents gave 'no comments' and none of the respondents operated only overseas.

The three companies, which were surveyed, were willing to participate in micro- case studies provided the researcher ensured confidentiality of data.

6.10 Micro-case Study of Three Companies A, B and C

Question (17) of the survey question asked whether the respondent would agree to participate in a separate structured interview alliance case study. The questions asked can be seen in Appendix 4. Three respondents agreed and two companies wished to stay anonymous because of competitive sensitivity in alliances and rapid changes in the

Telco world. The third company allowed the researcher to state both its company's name and that of the Chief Executive.

6.10.1 Company A

Company A is a leader in the telecommunications industry. In fact is the leading telecommunications carrier operating in Australia and in several markets offshore and continues to review opportunities in overseas telecommunications, information services and multimedia markets. Company A also reaches out to the Australian communities and is committed to good corporate governance practices. It has many linkage relationships mainly in the area of customer/supplier and specialised innovative technological sections. Company A has a significant role in the Australian economy and controls both copper and cable networks.

Company A is a highly recognised player as a communications solutions company in the industry, and in the economy generally, and being the leading player is confronted with intense competition from medium sized and smaller rivals in the industry. The alliances that it enters into are ones in which it needs specialised services. Many of its alliance parties operate as vendors locally and overseas, with which it has arrangement of specialised benefit to company A in the form of products or services. Company A was fully privatised in 2006. The interviewee was a Senior Alliance Manager.

Table 6.19 Company A (Major Telecommunications Competitor)

Simplified critical Questions	Summarised response
Describe tele. industry in Australia and issues in the industry	•Industry is growing and cooperative arrangements or networking arrangements are important. •Duopoly is a question mark? •Intense tendering, contract or non contractual. •Regulation is 'fair dinkum'; can be an issue for big players in the industry.
Threats and opportunities faced in Australia	•Deregulation of the Australian telco industry can be an opportunity or threat for major players. •Market is very volatile and has not settled yet. •Market has been deregulated providing opportunities for smart businesses to rise quickly through creativity and innovation.
Perceptions of alliance	•The word alliance is not commonly used in the industry. Sometimes alliance can be confused with the word outsourcing. •Alliances are equivalent to vendors for major contractors/suppliers. •Another word is arrangement or network clusters.
Importance of an alliance	•Effective communication is very important in alliance relationships. •Specialised skills and competitive advantages that are significant to one party create synergy for the alliance. •Global concept important for telco industry.
Importance of size in an alliance	•Yes, size can be comparable to power and control and is important. •Balance of power for equivalent size of alliance partners.
Importance of sustainability in an alliance	•Length of alliance is sustainable if there is profitability for both parties continuously. •Lengthy alliance or sustainable can work provided there is similar ethical practices and values.
Factors related to success in an alliance	•Healthy return on investment. •Profit is king and important for company's existence. •Healthy communication on a continuous basis for daily and strategic decisions.
Factors not related to a successful alliance	•Mutual benefit is relative, i.e. what is considered success in an alliance differs between the different alliance partners and is not universal or considered absolute.

The Senior Alliance Manager stated that the telecommunications industry is growing and cooperative or network arrangements such as alliance or tender contracts are extremely important. He also wondered whether the telecommunications industry will remain a duopoly between Telstra and Optus and mentioned that deregulation of the

telco industry can be an opportunity or threat to major players depending on whether it is equitable or not.

The word alliance is not usually used in the place of work and therefore outsourcing can be mistaken as an alliance too. Alliance can to taken to be major arrangements with cluster networks or vendors. Size is important and is comparable to power and control of partners. Success of an alliance is much more dependent on competitive advantage in creativity and innovation. In the alliance healthy communication between and among alliance partners is important on an on-going basis to carry out daily operations and strategic decisions.

6.10.2 Company B

Company B (known as Skilled Services) was formed in 1964. Its business partners are concerned with maintenance and engineering, production, infrastructure and customer contact solutions. Company B has been in existence for four decades and its core focus is in the provision of a skilled workforce, skilled infrastructure services and skilled customer contact services. This company mainly operates through network linkages with the main telecommunications carrier and with other networks in the country. It has contractual linkages with the 'mother board' company identified to be Telstra (the major telecommunications company in Australia), and many network linkages mainly across most communications, utilities networks and in innovation practices. Company B provides services towards the tail end of the telecommunications carrier line described by industry experts as a 'pipeline' and has been a finalist for innovative quality awards in the Telstra Vendor 2002 award. Certain of its business has alliance or similar relationships with the Snowy Mountains Hydro-electric Authority and certain other businesses practicing outsourcing.

Table 6.20 Company B (Company A's Linkage Partner: Skilled Services)

Simplified critical Questions	Summarised response
Describe tele. industry in Australia and issues in the industry	•Industry moving too fast and innovation is the 'rat-race'. •Duopoly.
Threats and opportunities faced in Australia	•Telstra can be an opportunity and a threat. •Telstra is the motherboard company that has strong infrastructure foundation in Australia or equivalent to 'Big Brother' in the Telco industry that is very fragmented with other carriers.
Perceptions of alliance	•Alliances are more like contractors or major partners. •Another name is network.
Importance of an alliance	•Specialisation of skills can contribute to form alliance relationship. •Technical and technological expertise is required by alliance partners to have a relationship linkage.
Importance of size in an alliance	•Yes, size does matter because larger companies have more power and control over smaller firms however smaller firms do have power and control in their creativity and innovation sectors if it is of an advantage to the larger firm. •Smaller companies want to associate with a big motherboard company.
Importance of sustainability in an alliance	•Long term not sustainable because there is no guarantee of future relationship generating income for both parties.
Factors related to success in an alliance	•Shared critical information in achieving similar goals. •Realistic contract.
Factors not related to a successful alliance	•Partners do not reach goals. •Poor management; lack of communication or 'too close for comfort' can contribute towards relationship failures.

Company B describes itself in different ways to different alliance partners. Sometimes it describes itself as an alliance or as an outsource partner to the telecommunications licensed carrier or even as a customer supplier linkage partner. It has taken this approach because it believes that the word alliance in practice is not clearly distinguishable in the telecommunications industry. The interviewee was the Night Supervisor, Customer Services and he believes that the rate of technological change

has been accelerating within Australia and is very much interwoven with telecommunications. The manager reported that communications systems are growing rapidly and involve the application of new technologies such as fibre optic and broadband wireless communication, more efficient telephony such as landline, mobile, satellite, internet, television and email, and that the list will grow futuristically.

With respect to their alliances and our factors, the Night Supervisor, Customer Services stated that size matters because larger companies have more power and control over small companies but smaller companies also can have power and control in their competitive advantage capabilities. Sustainability of the alliance relationship is not guaranteed. If there is no proper communication then an alliance tends to drift towards failure.

6.10.3 Company C

The third respondent was the Chief Executive Officer of Virtual Communities Group Limited. This company started with the concept of helping disadvantaged and low income Australians to access information technology communications, and in April 2002 it acquired the Melbourne based data-hosting business called GlobalCentre. In September 2002 it bought AustarMetro that provided dial-up services to more than 20,000 customers. The Virtual Communities Group operates from the Melbourne CBD in Southbank. The interview was conducted on 1st September 2004 with the Chief Executive Officer of Virtual Communities Group, Mr Rai Bhatia who mentioned that Virtual Communities will be sold to iiNet and he will be the chairman for Access Providers. Mr. Bhatia was the founder of Primus Australia, one of the most successful Telcos in Australia, and served as a Chief Executive Officer for six years. Mr. Bhatia returned to Primus Australia as Managing Director after serving as president of Primus' US operations during 2005 and 2006.

The Virtual Communities Group is in the services arena of telecommunications or, as described by industry respondents, a laser 'pipeline' (being a wireless pipeline). Virtual Communities Group has a spin-off, profit-driven internet company called Bigblue

(launched in 2003) that offers a comprehensive range of industry leading network infrastructure tailored to the requirements of today's demanding corporate environment. Virtual Communities Group has acquired several regional Internet Service Providers (ISPs). Virtual Communities Group believes that the present copper loop can be replaced by a broadband wireless access loop. It announced its maiden pre-tax profit at over $1 million in February 2003. Virtual Communities Group has many vendors and one of them is a major leading telecommunications licensed company (Indian Voice, July, 2003). The Virtual Communities Group has been taken over by iiNet and is operating under new management.

The Chief Executive Officer of Virtual Communities Group commented that alliances are equivalent to some form of arrangements done in a relationship between customers/suppliers in a contract. The telco industry is a field of relationships and contacts, and the business demands a high level of creativity, communication and people skills. Its alliance relationships are moving towards a virtual communications network, not necessarily with written contracts for smaller businesses.

Table 6.21 Company C (Virtual Communities Ltd/Bigblue; now called iiNet)

Simplified critical Questions	Summarised response
Describe tele. industry in Australia and issues in the industry	•Industry has one dominant player, a second large player and another 8 smaller players. The industry is a field of relationships and contracts. •Industry has fragmented or possibly cluster groups of players. •Duopoly and the era of small competitors are over.
Threats and opportunities faced in Australia	•Competition is very difficult and the golden era of strong competition is not yet over. •New era of potent competition through cooperation began in 1999. •Opportunities for about 10 telco companies in Australia. There is threat of takeover.
Perceptions of alliance	•Alliances are strategic partners in a commercial relationship. •Another name is contractor (customer/supplier), linkage partners, network cluster groups.
Importance of an alliance	•For global business and increasing market segmentation. •Technical and technological know how. Those who lack them, in order to keenly seek after companies with specialised skills to form an alliance. •Litmus test for mergers and acquisitions. Companies use alliances as one means of ascertaining a potential merger or acquisition.
Importance of size in an alliance	•Size matters, when parties are of equal size and similar market scope, perhaps balance of power and control is possible. •Most time's smaller companies form alliances with bigger companies than the reverse due to acquisition of special skills and capabilities.
Sustainability	•Success is not a function of time. •Profitability is the bottom-line and plays a significant role for both parties.
Success	•Fulfilling gaps in distribution, know how. •Financial benefit. •Successful outcome of some sort that benefits parties in the network relationship.
Reasons for failures	•Relationship does not produce results. •No synergy and trust. •Poor communication.

Importantly the Chief Executive Officer added further, that to be effective, an alliance must be founded on strong business logic or rationality and there should be clarity at the outset about what is going to be done, who is going to do it, what information will be shared, the standards of work expected and how charging regimes will work that can

contribute to success of an alliance. The Chief Executive Officer stressed that success is meant to be a tangible return on investment.

With respect to their alliances and our factors, the Chief Executive stated that size does matter when parties are of equal size and similar market scope, perhaps ally partners need to be of equal power and control but in practice most smaller companies form alliances with bigger companies due to access to special skills and capabilities that are key to the telecommunications sector.

6.10.4 Summary of the Conclusions From the Case Studies

The synthesis of the data into this table was derived by transcribing interview extracts through the mechanical and cataloguing process described in Chapter 5 to present this Table 6.2.2.

Table 6.22 below summarises the results of the interviews, which formed the basis of the case studies.

Table 6.22 Summary of Responses of Companies A, B, and C

Simplified critical Questions	Summarised response
Core issues in the telecommunications industries	•Market is very volatile, has not settled yet and consists of relationships and contracts. •Innovation is a race with few players. •Co-opetition (cooperation and competition) co-exists yet network arrangements are important.
Growth factors	•Promising with options through creativity and innovation.
Empirical meaning of alliance	•Outsourcing, vendors, major contractors or tenders, major customer/supplier, network clusters, arrangements and linkage partners.
Size	•Size does matter in an alliance where small and fragmented companies need big, strong and successful telecommunications firms that have established infrastructure foundations in the market.
Sustainability	•Not predictable over time.
Success	•Is found to lean towards financial gain. •Linkage partners need to achieve goals.

Factors that contribute to alliance failure	•Poor management of the relationship as a result partners not producing required outcome. •Lack of effective communication. •Commitment and Trust, Power and Control, Compatibility, Cultural Respect and Alliance Worthwhileness are relative factors because at times, some are important other may not be so and are not universal.

There are several conclusions that may be drawn from the three case studies of companies A, B and C and these are summarised below.

Power and control are an important factor when undertaking alliances; the Senior Alliance Manager considers it important on an ongoing basis for their strategic and operational decisions.

Smaller companies have power and control in alliances through their competitive advantage capabilities. It was also felt that there is no guarantee in the sustainability of an alliance and if there is inadequate communication between the parties then the alliance will drift towards failure.

The third respondent was the Chief Executive of Virtual Communities Group and this company is in the service area of telecommunications. The company has recently acquired several internet service providers. The respondent explained that alliances were similar to contracts although they are not written contracts. It was related during the interview that the success of an alliance is equated to return on investment or some tangible measures and joint accomplishments of individual goals. From their perspective an alliance must be founded on good business management guidelines.

The above three summaries reveal important issues. It is clear that different sized companies enter into strategic alliances. Power and control tend to be more important issues for the larger companies than for the smaller ones, reflecting the fact that the smaller ones tend to have less power and control due to their nature and size. However, the smaller ones can have power and control depending on their level of expertise. It is also important that alliances do not continue indefinitely because the respondents felt that alliances can ultimately come to an end. During the tenure of the

alliance, they felt that communication, information sharing, work standards and charging regimes be clarified up front in order to minimise potential difficulties.

Ultimately, an alliance should make good business sense and should provide a return on investment to the parties involved. It is up to each alliance partner to determine its acceptable return on investment before entering into an alliance.
The cooperative factors in alliance relationships were not seen to be influential if effective communication is not present. Then the alliance tends to fail rather than achieve success. Sustainability is not considered to be important in a dynamic unstable environment with lots of changes happening (rapidly), where alliances are formed and dissolved in response to transient business priorities. The size of the relationship tends to matter because smaller companies seeking established infrastructure and markets go into alliances with bigger companies, and bigger companies consider linkages with smaller companies because of their technical and technological expertise and specialisation.

The conclusions from the qualitative interview results regarding the six factors are presented in Figure 6.1.

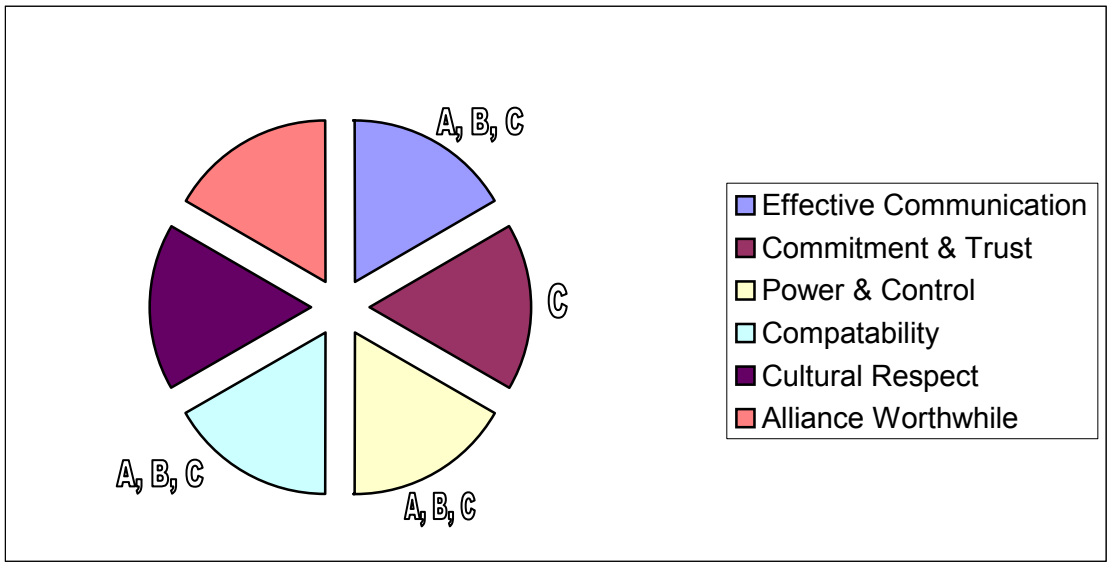

Figure 6.1: Mapping of Qualitative Interview Results, Companies A, B and C

All three respondents from the three companies A, B and C agreed that effective communication is important for alliance success. Additionally the respondent from company C expressed the view that the presence of commitment and trust between parties builds the relationship. All three respondents also perceived that the effective management of power and control were important for effective alliance relationships. All respondents agreed that there can be compatibility between alliance partners even though not all parties in the alliance have the same skills but they need to have specialised synergistic skills.

With respect to cultural respect and alliance worthwhileness, all three respondents did not provide any comment as it being important for effective alliance relationships. However, company A commented that all six factors are relative in terms of circumstances in determining alliance effectiveness.

In conclusion the results for cooperative factors, effective communication factors, and that of effective alliance success are similar whether they were derived from quantitative or qualitative research. With regards to size, both quantitative and qualitative results support the study regarding the fact that size does matter. However quantitative findings of sustainability show some influence to cooperative factor (cultural respect), but not from qualitative findings, as there were only three managers who were interviewed from the lucrative telecommunications industry who perceived sustainability as relative to effective alliance success.

CHAPTER 7: DISCUSSION AND OVERALL RESULTS

7.1 Discussion

This chapter addresses the research questions what does an alliance mean in practice? Do cooperative satisfaction factors contribute to the success of an effective business relationship? Are cooperative satisfaction factors dependent on the sustainability of an effective business relationship? Is size a moderating contributing factor to a successful business relationship? What needs to be present in an effective relationship? The significant results are discussed in this chapter following some practical implication emerging from the research and finally the conclusion.

7.2 Research Questions

7.2.1 What Does an Alliance Mean in Practice?

From the qualitative results, this research study established that the word ‘alliance’ is not commonly used in industry but is equivalent to relationships with vendors, major contractors/suppliers, arrangements or network clusters in specialised skills, major linkage partners, and strategic partners for commercial benefit. Alliances are different from other structural transactions, such as mergers or acquisitions, in that an alliance does not infer the amalgamation, takeover or purchase of one party by the other, as occurs in mergers and acquisitions. Alliances need to be managed differently by people who have specific knowledge and understanding of alliances and need to employ performance measurement concepts (for example profit) to monitor viability of the arrangement or linkage (Anslinger & Jenk 2004).

It became apparent during the findings that individual respondents tend not to understand the meaning of the word “alliance”. This research has uncovered confusion over the meaning of the word in the Australian telecommunications industry. This study showed that the word ‘alliance’ is a complex term associated with a variety of connotations including: network, arrangements or contractor/supplier of communication connections. This finding is at variance with Geurts and Van der Zee’s study of Cisco and KPMG (1996). Perhaps the Australian telecommunications/technology industry has a different focus from the industry of the Cisco and KPMG’s study.

7.2.2 Do Cooperative Satisfaction Factors Contribute to the Success of an Effective Business Relationship?

From the literature review, communication and sound conflict resolution have been identified as highly significant in alliances by many researchers (Olson & Singsuwan 1997:252; Finnie 1998; Segil 1998a & b; Chan et al. 1997; Spekman et al. 2000; Segil 2001; More & McGrath 1996; Shaw 1997; Hutt et al. 2000; van Marrewijk 2004; Ryan & Morriss 2005; Taylor 2005).

From this research, it would be expected that there would be some level of significant relationship between ‘alliance is successful’ and the ‘alliance raises and solves problems amicably to achieve common goals’.

These results confirm the research questions and propositions above, because when there is a significant relationship between 'alliance raises and solves problems amicably to achieve common goals’ and ‘alliance relationship is successful’, then this would mean that there is an alliance in practice and it is working. It would also be reasonable to state that this type of significant relationship would relate to the success effectiveness of the alliance.

It appears from this significant result in Tables 6.14 and 6.15 that there is a relationship between alliance success with another firm and the alliance has open communication to achieve common goals. This is the case and an important factor too, for when

companies have open communication to achieve common goals, then the alliance can succeed. This would be a crucial aspect of alliance success for when this condition is satisfied, the alliance partners would have an environment to openly work together towards their vision and strategy, both tactical and operational. It would seem further, that this is important so that everyone can candidly express their issues and concerns, and for all parties to work together to achieve their aims.

It should also be noted that the chi square value is just over 40, which is the chi square statistic value of 39.25 where p=0.001. This infers an extremely strong relationship between these variables, virtually at a 99.9% confidence level, and not just at the 95% confidence level or the 99% confidence level.

In an operational sense, alliances will work (to some degree) because the alliance partners have an arrangement whereby they can raise and solve problems openly and amicably to achieve their common goals. When this is accomplished, there is no need to break up the alliance since it is performing well. Rather, this can be seen as growth of the alliance. If this were not the case for either one or both of the alliance partners, it would seem natural that the alliance would collapse. It would collapse under such a scenario when one party perceives that it is not achieving its goals while the other party is. Similarly, when the common goals begin to diverge, it is also possible that the alliance may not work. The same can be said about raising and solving problems in an alliance amicably.

Alliance partners are likely to have differences of opinion as to how to achieve success and when there are issues to address, and how can they achieve common goals? Alliance partners may perceive the concept of ‘solving problems amicably’ in a different manner from each other. This may be, over time, an issue that would need to be resolved.

7.2.2.1 Does the Alliance Sharing Information in Coordinating Activities to Achieve Common Goals Result in the Success of the Alliance?

From this research, it would be expected that there would be some level of significant relationship between ‘alliance is successful’ and the ‘alliance shares information in coordinating activities to achieve common goals’.

The results that were obtained from the research confirm the literature review which found quality of communication, information sharing and participation, have been communication attributes identified as critical to strategic alliance success (Daft & Lengel 1986, Ohmae 1990; Harbison & Pekar 1998; Mandal et al. 2003) and organisational success (Beamish & Killing 1997; Ryan & Morris 2005).

These results answer the research questions and propositions, because when there is a significant relationship between 'alliance shares information in coordinating activities to achieve common goals’ and ‘alliance relationship is successful’, then this would mean there is an alliance in practice.

It appears from the results that there is a relationship between alliance success and the sharing of information in coordinating activities to achieve common goals with another firm. This would appear to be the case and an is important factor since when companies share information to achieve common goals, then the alliance would be a success. It would seem that this is a crucial aspect of alliance success since when this condition is satisfied, then the alliance partners share information in coordinating activities and therefore create an environment to openly working together in all aspects of their operations. Sharing information in coordinating activities allows the parties to work together, know what each party is up to and how this affects the alliance, and when problems and issues may arise to quickly communicate to the relevant managers the action required to address these issues.

It is also important that everyone share information so that they can candidly express their issues and concerns, and for all parties to work together to achieve their aims. It

should also be noted that the chi square value is approximating the chi square statistic of 32.00 where p=0.01. This infers a strong relationship between these variables, virtually at a 99% confidence level, and not just at the 95% confidence level. Therefore, quality of communication, information sharing and participation are communication attributes identified as critical to strategic alliance success (Daft & Legal 1986,Child & Faulkner 1998; Segil 1998a & b; Ohmae 1990; Harbison & Pekar 1998; Mandal et al. 2003; van Marrewijk 2004; Anslinger & Jenk 2004;) and organisational success (Beamish & Killing 1997; Ryan & Morris 2005).

7.2.3 Are Cooperative Satisfaction Factors Dependent on the Sustainability of an Effective Business Relationship?

Alliance sustainability was measured by the length of time a relationship was in existence.

The results confirm the research questions and propositions because there is a relationship between the 'length of time in strategic alliance' and 'cooperative linkage acts in a consistent manner with expressed values, beliefs and practice'. This implies that there is an alliance in practice and it is working due to the length of time of this alliance, i.e. that the alliance is 1-5 years duration. This type of relationship would relate to alliance sustainability and success, since these values are expressed at the higher end of the length of time in strategic alliance.

The analysis of the results of this survey (Table 6.13) found a relationship between 'the length of time (sustainability) in which firms were involved in the alliance' and 'the cooperative linkage acts in a manner that is consistent with expressed values, beliefs and practices' (cultural respect).

Cultural fit between the partners forming the alliance 'is one of the contributing factors to alliance success' (De Man 2001:65) supported by (Harbison and Jr. Pekar, 1998; Peters & Waterman 1982; Olson & Singsuwan 1997; Child & Faulkner 1998; Segil 1998a & b; Todeva & Knoke 2005; Spekman et al. 2000; Anslinger & Jenk 2004; van Marrewijk

2004). Thus one of the six cooperative factors (cultural respect) supports that these factors are positively related to sustainability of alliance effectiveness. From the literature review of this research study it was found that although sustainability is not a surrogate for performance, alliances that last for a long time are more successful than those that do not (Spekman et al. 2000:57; Segil 1998a & b; Todeva & Knoke 2005; Segil 2001). Caution should be taken with regards to the use of measures of sustainability as a measure for success - like a one size fits all approach (Jucker 2002:15). So duration is not a criteria for success, additionally because 'an alliance that lasts four months can be as successful as an alliance that lasts four years if both have accomplished their stated mission and objectives and learning has occurred' (Spekman et al. 2000:31), indeed the notion of long term varies and is industry specific. Brown and Pattinson (1995), (among others such as Das & Teng 1998a & b; Rodriguez 2005) studied alliance partner asymmetrics and discovered that similar cultures, asset sizes and venturing experience levels, tend to contribute to longer ventures between partners.

It appears from this result that there is a relationship between the length of time that a company has been involved in a strategic alliance with another firm and the cooperative linkage acts in a manner that is consistent with expressed values, beliefs and practices. At face value, this would appear to be the case since when companies cooperate in a manner that is consistent with expressed values, beliefs and practices, it would be expected that the alliance would be a success. This is probably due to the fact that once companies in an alliance behave in a manner towards each other in this fashion they both have a footing on which to pursue their alliance objectives through actions which are consistent with inner directives.

This would seem a reasonable outcome since it takes time in an alliance relationship for cooperative linkages to be conveyed, understood and practised in a manner consistent with expressed values, beliefs and practices. In other words, it takes time to build a relationship, and an alliance between companies is no different from any other relationship building exercise. The rating is higher for longer-term relationships because for these companies their response would also include their success factor, i.e. the alliance has worked for them.

7.2.3.1 Does the Length of Time in the Alliance (the Sustainability) Impact on the Success of the Alliance Relationship?

From the results chapter, the length of time in the alliance (sustainability) has no impact on the success of the alliance relationship. It is also supported by researchers in the literature review that duration is not a criteria for success because 'an alliance that last four months can be as successful as an alliance that last four years if both have accomplished their stated mission and objectives and learning has occurred' (Spekman et al. 2000:31). The notion of long-term varies and is industry specific. Brown and Pattinson (1995) studied alliance partner asymmetrics and discovered that similar cultures, asset sizes and venturing experience levels tend to contribute to longer ventures between partners, which the researcher associates with sustainable relationships.

7.2.4 Is Size a Moderating Contributing Factor to a Successful Business Relationship?

From the literature review, firm size tends to be a robust empirical variable in many research studies (Shalit & Sankar 1977) and studies on size of the firm shows that size can be a positive contributing factor to the risk a small firm takes when forming an alliance with a large firm and must consider the potential gains that could motivate takeover by the large firm. Therefore, size can be a positive contributing factor to risk as studied by Trimbath et al. (2000).

Further, it may be taken that as the size of the companies involved in an alliance increases, the greater the tendency for the companies to express their belief that they have equal power and control in decision making in the alliance. Furthermore, it may be seen from the results (Table 6.16) that the response rate between the medium-sized companies was 23% and the small companies was 20% but the response rate for the large companies was 57%, hence reinforcing this finding. It shows that the respondents believe that the larger the company tends to be in an alliance, the more they believe

that the company has equal power and control in decision making. Apparently size does matter in this context.

Is size of the firm a critical factor for alliances? In alliances it is not about size but about business and relationships (Spekman et al. 2000) and fear is a very real matter among managers of small firms that seek alliances with larger firms. For example biotech information technology and telecommunications industries (Spekman et al. 2000) that are very fragmented, have smaller firms seeking to build alliances with larger firms to develop industry standard or products or complete a project (Spekman et al. 2000). In modern times similar relationships between innovative small companies and large companies strong in marketing channels seem to function adequately (Deering & Murphy 2003; Child & Faulkner 1998; Todeva & Knoke 2005; Hargrove 1998; Segil 1998a & b, 2001; Anslinger & Jenk 2004).

The outcomes from this research have shown that there is some level of significant relationship between the variables the 'size of a company' and 'companies in the alliance have equal power and control in decision-making'.

7.2.5 What Needs to be Present in an Effective Relationship?

Most importantly, effective communication has a strong positive influence in an effective alliance relationship. Cultural respect has some influence in an effective alliance relationship as well as power and control in decision-making, which is more of a mediator factor for an effective alliance success. Commitment and trust is not as important as effective communication.

According to the results obtained from the qualitative data, businesses in the telecommunication and technologies industry demand a high level of creativity and innovation, for effective alliance success and linkage synergy to exist in a relationship.

7.3 Significant Results

There are four significant results, which are important for the success of an alliance as listed below.

1 Length of time (sustainability) firms are involved in alliance and the cooperative linkage acts in a manner that is consistent with expressed values, beliefs and practices. There is significance between sustainability and cultural respect of the alliance firms. Cultural respect between firms, one of the six cooperative factor needs to be present to sustain an alliance relationship.

2 Significant cooperative relationship between our 'alliance is successful' and 'the alliance raises and solves problems amicably to achieve common goals'. There is a relationship between perceived success of firms and that of effective communication between or among alliance firms which is the other cooperative factor to be present for success of an effective alliance relationship.

3 Significant cooperative relationship between our 'alliance is successful' and 'the alliance shares information in coordinating activities to achieve common goals'. This means that a perceived success of alliance is effective communication.

4 The relationship of core cooperative factors are not all that significant except, if effective communication is not present then the alliance tends to fail rather than achieve success. Sustainability is not necessarily considered to be important because of the dynamic unstable environment wherein the telecommunications technology landscape changes continually. However with similar ethical practise alliances can be sustainable. The size of the relationship tends to matter, because smaller companies tend to be in specialised arenas and tend to link with bigger companies for survival offering their technological expertise in exchange for competitive advantage.

The qualitative research data gathered from the survey and presented in Table 6.18, shows factors of importance to alliance effectiveness relating to success have been of mutual benefit to linkage parties, and supporting this concept is the analysis summarised above. Linkage parties must produce results and provide added value to the parties with their competitive edge in the industry. Most companies embarking on linkage relationships in the Australian telecommunications/ technology industry operate both within Australia and overseas.

With reference to interview results gathered through the micro case study, there can be a dominant party in the alliance as reiterated by interviewee from company B stated that Telstra tends to be the motherboard for telecommunications within technology industries. Telstra tends to have the foundation for telecommunication pipelines and seeks to offer linkages to many competitive and innovative technological companies.

The qualitative results support the research assumptions that size does matter. Company C supports the fact that more smaller companies tend to form alliances with larger companies than the reverse. Company B strongly supports the fact that big companies links with big companies better, and small companies link with small companies for balance of power. Company A believes that size does matter in a collaborative situation because a smaller company wants to associate with a motherboard company such as Telstra that provides a platform structure and allowing the smaller companies to provide their telecommunication services. Besides, size of firm does matter to some extent in relation to power of control in decision-making.

This contrasts with the quantitative findings, where size does not matter in a cooperative relationship. Perhaps the majority of respondents obtained from the quantitative survey tend to be first line supervisors (Table 6.2 of Chapter 6) who were so caught up with day to day short term operations that they were unaware of the bigger issues about size of the company relating to effective alliances.

In the literature review it has been commented that alliances are not about size but about business and relationships (Spekman et al. 2000), and fear is a very real concern

among managers of small firms that seek alliances with larger firms, especially today for example in the biotech information technology and telecommunications industries (Spekman et al. 2000). The researcher discovered through the micro-case study evaluation that the above statement is true for the Australian telecommunications industry because Telstra being the mega company ('the motherboard') tends to attract many smaller companies willing to link and be controlled by the larger firms for survival and growth because Telstra has the market share and infrastructure which the smaller companies don't have. In contrast large companies with large companies tends to be competitive, practice keen mutual learning from one another and supports the Child and Faulkner (1998) concept that high cooperation and high competition provides keen learning from both parties, mainly in value added distribution alliances customising for local markets, like Optus and Sing-Tel for the Australian market.

The importance of large successful companies in the telecommunications and technology market is that they can be likened to the 'mother of pearl' companies. In Australian industry, the smaller fragmented telecommunications and technology companies, coupled with deregulation and lower prices produces 'baroque (irregular-shaped) pearl' companies.

As to the significance of cooperative factors to success of alliance, qualitative data analysis tends to be subjective and more about managers needing to know how to manage in an alliance situation; and the bottom line is profit that tends to be a significant deciding factor for companies A, B and C. In relation to quantitative data analysis, success is likely to be significant to some extent especially in relation to open communication creating successful alliance (Spekman et al. 2000; Anslinger & Jenk 2004; Taylor 2005; Tyler et al. 2006) and some aspect of commitment and trust in sharing similar goals. According to Lewis (1999:52), to win each other's commitment each party needs to make the entire arrangement of the alliance attractive to one another recognising significant costs and benefits in financial and non-financial terms. Company C is more likely to state that success is not a function of time, but profitability (hard facts) can matter in a cooperative linkage.

As a major competitor in telecommunications, Company A related that telecommunications is a very important part of the Australian way of life. Australia today celebrates 150 years of telecommunications since 1854 where telecommunications was contained within a two-roomed weatherboard cottage, and grew into a world of wireless communication for voice and data, satellites, cable TV and the internet. The telecommunication industry is volatile, highly competitive, lucrative, dependent on technology, and seeking for combinations of opportunity to succeed such as cooperative means.

Examples of alliances that have been successful in the telecommunications/technology sector are Telstra Enterprise Services Pty Ltd originally known as

> Advantra Pty Ltd that was formed through alliance between Telstra, IBM Australia and Lend Lease. Later on 31 March 2000, Advantra Pty Ltd became a wholly owned subsidiary of Telstra after Telstra acquired the remaining 50% of Advantra Pty Ltd and renamed it as Telstra Enterprise Services Pty Ltd (TES). (Telstra Corporation Limited 2002:13)

Australia's Telstra and Pacific Century CyberWorks, of Hong Kong's joint venture alliance also seemed to be successful; however time is the best judge of success.

Another successful example is the Bendigo Community Telco formed in 1999 with strong communities focus through strategic relationships with Optus and PowerCor, but mainly with AAPT as strategic alliance supplier (Bendigo Community Telco 2003:7). Another good example is PowerPC, the IBM Motorola-Apple alliance which developed a new micro processor to compete with Intel. In summary the researcher supports the concept that there is no single recipe for a successful alliance (The Economist Intelligence Unit 1994; Spekman et al. 2000).

So the question about success being significant in this study is to some extent shown in the results chapter. Quantitative data supports the assumption that some cooperative factors such as: communication, workable power and control between firms and cultural

respect between firms are significant to an effective alliance relationship. However, success is dependent on commercial matters such as profit being the king or core in an alliance relationship. Success in the quantitative analysis tends to be associated with value adding technical synergy and satisfactory outcomes, whereas qualitative analysis is considered to be a new performance measure (Maskell 1994).

In the quantitative analysis of whether sustainability/longevity is significant to cooperative linkage the result has been proven to be negative. According to Jucker (2002:11) sustainability is difficult to define and there is no room for long-term relationships therefore sustainability is no substitute for performance. In the qualitative data process, it was found to be more unsure because duration of alliance is difficult to predict, and company A believes that profit can be a determining factor for sustainability of an alliance, whereas company C is of the opinion that success is not a function of time but sustainability is.

7.4 Conclusion

In conclusion, this thesis has a strong support base, both quantitatively and qualitatively, for success (dependent variable) to be quite significant to cooperative factors in an alliance, and is in support with the Callan, Gallois and Noller (1986) concept that cooperation is higher in a satisfaction situation. The finding that size does not play a significant role for cooperative factors in an alliance relationship reinforces the concept by Spekman et al. (2000:76) that alliances are not about size, but about business relationships. Also, sustainability is relative to the industry (Spekman et al. 2000; Jucker 2002) and is currently not significant for the Australian telecommunications industry that is volatile and inconsistent, and in continuous linkages with businesses.

Philosophers tend to say that since knowledge reaches us through our senses, they can be deceived; no knowledge is verifiably true and the relativism of this research is that effective communication is a significant cooperative factor for effective strategic

alliances in the Australian telecommunications industry because that is what telecommunications is all about: enabling communication over distances, supported strongly by Picot (2006).

CHAPTER 8: CONCLUSION AND WHERE TO NOW?

8.1 Conclusion

As Byrt (1968:23) stated: 'the ability to foresee oneself into the future is a valuable quality to possess' and this study has highlighted the common or alternative use of the word alliance in practice is likely to be relationship, linkage, arrangement, major network, contractor, or vendor, but definitely not likely to be a marriage, merger or takeover.

Cooperative factors (effective communication and to some extend commitment and trust) are important for alliance success because these factors add value towards building a cooperative alliance, not necessarily sustainable and supported through the literature as well as empirically in this study through quantitative as well as qualitative methods.

The six cooperative factors were critically selected from the literature review. They have not been applied specifically in the telecommunications industry, but more in a generic industry, and were explored further through both case study forms and questionnaire methods. Although success of an alliance does not depend on all six factors as a cluster, it does relate to two cooperative factors that is effective communication and to some extent commitment and trust. There is still a lack of empirical investigation of factors associated with successful alliances, because relationships are so complex and there is considerable ambiguity about which factors significantly influence success of an alliance much supported by many authors (Taylor 2005; Gulati & Zajac 2000; Saxton 1997; Smith, Carroll & Ashford 1995; Varadarajan & Cunningham 1995).

Since the telecommunications/technologies market from the 1990s to the present is very volatile, Company A (major telecommunication company and was recently privatised), B (Skilled Infrastructure Services) and C (Virtual Communities/Bigblue) demonstrated that sustainability is not necessarily related to success because the market is so unpredictable and ambiguous. Cooperative factors are not dependent on alliance sustainability which is a learning continuum rather than a test of alliance success because as Spekman et al. (2000:31) stated, an alliance that lasts four months can be as successful as an alliance that last four years if both have accomplished their mission and objectives. They also commented (and also cited by the researcher) that sustainability is not a surrogate for performance and caution should be taken with regards to the use of measures of sustainability as a measure for success. The researcher proposes that sustainability is a learning factor and the test of time can likely determine the sustainability of an alliance success.

Size of the firms (quantitatively) does matter to some extent in a successful alliance relationship but can be a subjective challenge on qualitative findings. Since the telecommunications/technology industry is still in the midst of a revolution and 'profit is the king' or the bottom-line for the survival of this industry (that has not been measured in dollars for this research), it is likely that firms will concentrate on profit and survival of the business rather than size. Size can be equated to companies wanting an opportunity to excel in their industry and it all depends on how the world perceives size to be a significant measure for performance and survival. Size of the firm tends to be at times inversely related to cooperative factors because bigger firms tend to control smaller firms and smaller firms are compliant to the power of control by bigger firms through alliances.

This research supports the fact that telecommunications will gradually integrate and converge with more segments of the communications industry (Adamska, 1998 & Picot 2006) and come through a futuristic global wireless, fiber-optic, spider web communications networks, provided by alliances and clusters. Global alliances are in vogue especially in the telecommunications sector because of deregulation, innovation in technologies, liberalisation of trade and changes in competition law. These factors

brought about increased interaction among telecommunications carriers resulting in the formation of global alliances (Adamska 1998; Picot 2006) favouring and supporting peoples lifestyles in a user-friendly manner.

8.2 Some Practical Implications Emerging From the Research

The practical implications emerging from this research is that the word alliances will be better understood by many in the telecommunications industry as well as the technology industry and the wider community. The definition of the word alliance can be defined now as a linkage of customer/supplier relationships that has not got a specific duration or sustainability, but helps in sustaining a relationship through cultural fit and where its success is dependent on effective communication.

Alliances tend to grow in clusters, forming network of clusters and if difficulties do arise then all parties need to use effective communication to resolve these difficulties. The resolution of problems should be a higher priority in a strategic alliance than in the ordinary course of business pursued by a single company. The research confirms this because when the alliance partners do feel free to raise and solve problems amicably to achieve common goals they individually perceive that the alliance is working. Therefore, the alliance partners should ensure that: they feel they can raise problems; they feel they can raise them amicably; they feel they can resolve them; and they feel that the resolution will result in achieving common goals. It is critical at all stages of the alliance progression that all parties believe that they are benefiting from the alliance.

Though not specifically an issue for problem resolution, the sharing of information in coordinating all types of activities to achieve common goals with another firm is critical to alliance success. Withholding information from a partner can be a severe negative impost on the effective operations of an alliance and should be avoided at all costs. Sometimes, however, the difficulty may not be in withholding information but knowing when to stop giving over too much information to the other party and therefore

endangering your own role within the alliance. This is for alliance managers or contracts to determine and should not be left to operational employees. The crux of the issue is that management should have effective internal monitoring regimes before any information leaves the confines of their business. While in this case it has been cited as an alliance issue, it is in fact, an ongoing vendor management issue.

Companies should not focus specifically and only on the length of time of an alliance to ascertain whether it has been successful. Companies should enter into alliances with specific objectives, including that of time duration and should monitor the progress of an alliance at all stages of its operation. As such, benchmarks, critical success factors, and other forms of performance review should be employed to monitor and manage their (and their partner's) performance in the alliance. At some point in time the senior management of either one or both of the vendor partners will have to conclude that the alliance has (or has not) served its purpose and may need to be terminated in due course. Obviously, even this consideration should be thought of at the outset and incorporated into the rules of engagement of the alliance; in this way either one or both of the parties has an acceptable 'out' from the alliance.

In a similar manner, this research found that alliance sustainability was measured by the length of time a relationship was in existence. Obviously, such issues of alliance duration need to be clarified and formally documented at the outset, and especially before any activities are undertaken in the name of the alliance. Once such early formalities are completed then the parties can proceed to act according to the alliance agreement, ensuring that sustainability is not threatened. The last issue that any partner wants or needs to face at the beginning of an alliance is the uncertainty of when it started, who was empowered to act (and in what manner) and to whom the outcomes of certain courses of action accrue to: one party, the other party or to the alliance in general. Therefore, potential alliance partners should ensure rigor in offering successful determinants in the alliance.

For an alliance to operate to a level considered satisfactory by all parties, then all parties should act in a consistent manner with expressed values, beliefs and practices

share between the parties across all facets of alliance operations. Alliance partners should consider that practical implications of formalising their expressed values, beliefs and practices and providing them to all staff engaged in alliance activities. These values, beliefs and practices can be formalised in a similar manner to that of a mission statement, alliance management objectives, code of ethics and rules of operation (inclusive of intra and inter alliance partner. Thompson and Strickland (1998) explained the general concept that strategic alliances are a game plan for strengthening the organization's position, pleasing customers, and achieving performance targets for parties involved in the relationship.

This thesis has shown that alliances by their nature generally tend to have time duration (otherwise they would not be alliances); therefore the duration of the alliance should also be clarified and documented from the beginning. In addition to this is that all staff engaged in alliance activities should have ongoing training (for example on alliance dynamics and teamwork and communication skills) and development to add to their skill base and ensuring the sustainability of the alliance, perhaps on a yearly basis. It is commonly understood that in order for a partnership to succeed, all parties must work at it continually or else it (the partnership, cum alliance) will atrophy and break down. Businesses should consider all the components of values, beliefs and practices because the subsets of these include cultural fit and respect, mentality, written and unwritten rules of the ways of doing things, the makeup of the staff in the businesses that make up the alliance, and methods and types of communication among and between the alliance parties are vital.

From a practical perspective, the size of the parties in an alliance should not be of concern as long as the roles and obligations (as discussed above) are clearly agreed between the parties, formalised and then communicated to all the staff engaged in the alliance and third parties are duly notified of this arrangement. There is an inherent risk (either to the smaller party or to both parties if a takeover is an aim of both parties) in forming alliances when one party is large and the other party is small because the tendency may be for the larger party to dominate and possibly take over the smaller party. However, if the relationship is clearly enumerated and boundaries are

established, monitored and errant behavior is dealt with speedily by both parties and to their satisfaction, then the alliance should become a successful one. Smaller businesses entering into an alliance should ensure that their unique skills, knowledge and expertise are adequately protected through patents, trademarks and other forms of legal protection. If they are not, there is the possibility that the frequency of a potential merger or takeover may occur, also supported by Hanson et al. (2008:286) who stated that an alliance can be used as a way to determine if partners might benefit from future merger or acquisition between them.

In addition to this, the practical thing to do is to ensure that size does not determine the extent of power in the alliance. A bigger company does not necessarily mean that it should or ought to have more power and control in an alliance than a smaller company; it ultimately depends on why they want to form the alliance, what they will bring into it and what they expect to achieve from it. There may be similarities as well as differences and no one company should consider itself the paramount alliance partner due to its size. Conversely, size also bring threats to the larger alliance partner as they may have more to lose by possibly giving away valuable knowledge and expertise which the smaller alliance partner does not posses. As Spekman et al. (2000) have acknowledged, it's not about size but about business and relationships that matter.

The scarcity of empirical research on alliance relationship success leaves the field open to a learning signpost for the future in a variety of fruitful research questions as follows:

- Does profit measured in dollars constitute a driving force for an alliance's success?
- Are alliances a litmus test for mergers, acquisitions or takeovers?
- Do profit organizations achieve more successful alliances than non-profit organizations?
- Do companies that practice corporate governance make better alliance partners?

8.3 Future Study

So, where do we go from here? The future success of alliances in telecommunications is in the integration of different industries linking within the telecommunications wireless pipeline. This brings about a paradigm shift where business success is dependent upon effective communication where distance, size and premises/location, does not matter (or plays a decreasingly important role).

The future will bring more rapid change and more flexibility in business operations through alliance networks. As technological creativity and innovation gathers more momentum, no one single player will have the individual resources to provide what the market needs. This will provide a further impetus for large, medium, and small sized companies to engage in strategic alliances. It is conceivable that some or all of the cooperative factors discussed in this research could play a major role in alliance success. This study can also be taken into an international stage.

REFERENCES

Abell, D. F. 1993, *Managing with dual strategies: Mastering the present pre-empting the future*, The Free Press, New York.

Alperovitz, G. 2003, Sustainability and systemic issues in a new era, in (ed.), H.M. Jonathan (ed.), 2003, *Rethinking Sustainability: Power, Knowledge and Institutions*, The University of Michigan Press, Michigan.

Adamska, M. 1998, *International telecommunications alliances and foreign direct investment as means of globalisation: Legal and regulatory responses to the emergence of supercarriers*, Masters Thesis, McGill University, Montreal.

Andersson, P. & Mlleryd, B. G. 1997, Telecommunication services in context: Distribution consequences of technology change and convergence, *International Journal of Service Industry Management*, 8, 5, 453-473.

Anslinger, P. & Jenk, J. 2004, Creating successful alliances, *Journal of Business Strategy*, 25, 2, 18-22.

Australian Financial Review, 1999, *Alliances alive but not necessarily well*, October 8, 20.

Australian Financial Review, 2001, *Alliance proves solid foundation*, February 1, 21.

Australian Telecommunications Industry, 1990, *A Source Book*, in (ed.) O. Leigh, Australian Government Publishing Service, Melbourne.

Baldwin, T. F. Mcvoy, D. S. Steinfield, C. 1996, *Convergence-integrating Media, Information and Communication*, Sage, Thousands Oaks, CA.

Banaghan, M. 1999, Ziggy's mission, *Business Review Weekly*, 3, 38-42.

Bartol, K., Martin, D., Tein, M., & Matthew, G. 2001, *Management: A pacific rim focus*, 3rd edition, McGraw Hill, Sydney.

Bartol, K., Tein, M., Matthew, G. & Martin, D. 2003, *Management: A pacific rim focus*, Enhanced edn, McGraw Hill, Sydney.

Beamish, P. W. & Killing, J.P. 1997, *Cooperative strategies*, The New Lexington Press, San Francisco.

Beerkens, B. & Lemmers, C. 2001, Tech alliances: Managing your alliances portfolio; in (eds) de Man, A. P., Duysters, G. &Vasudevan, A., *The Allianced Enterprise: Global Strategies for Corporate Collaboration,* Imperial College Press, London.

Bendigo Community Telco, 2003, *Toolkit case studies*, Part 2, Victoria.

Berenson, B. 1999, Sorting out the options for a global telecommunications service, *Computer-Technology Review*, June, 19, 6, 16-42.

Birnbirg, J. G. 1998, Control in interfirm co-operative relationships, *Journal of Management Studies*, July, 35, 4, 421-428.

Bleeke, J. & Ernst, D. 1995, Is your strategic alliance really a sale*? Harvard Business Review*, Jan/Feb, 97-105.

Borg, W.R. & Gall, M. D. 1989, *Educational research: An introduction*, 5th edn, Longman, New York.

Bouw, P. 2001, *Making alliances work: Lessons from the airline industry*, in (eds) A. P. de Mann, G. Duysters & A. Vasudevan, *The Allianced Enterprise: Global Strategies for Corporate Collaboration*, Imperial College Press, London.

Brandenburger, A. M. and Nalebuff, B. J. 1996*, Co-opetition*, Currency Doubleday, New York.

Brock, G. W. 1981, *The telecommunications industry: The dynamics of market structure*, Harvard University Press, Cambridge, Mass.

Bromberger, S. & Hoover, S. 2003, Supply chain challenges: Building relationships, *Harvard Business Review*, 81, 7, 65-73.

Brouthers, K. D., Brouthers, L. E. & Harris, P.C. 1997, The five stages of cooperative venture strategy process, J*ournal of General Management*, Autumn; 23, 1, 39-52.

Brown, L. & Pattinson, H. 1995, Information technology and telecommunications: impact on strategic alliance formation and management, *Management Decision*, 33, 4, 41-51.

Bruner, R. & Spekman, R. 1998, The dark side of alliance. Lessons from Volvo-Renault, *European Management Journal*, April, 16(2), 136-150.

BRW 2002, Absolute porter, *Business Review Weekly*, September, pp. 34-39, 74.

Bureau of Transport & Communications Economics, 1995, *Communications futures*, Final Report, Australian Government Publishing Service, Canberra.

Bureau of Industry Economics, 1995, *International performance indicators: Telecommunications 1995*, Research Report 65, March, Australian Government Publishing Service, Canberra.

Bushnell, J. A. 1961, *Australian company mergers 1946-1959*, Melbourne University Press, Melbourne.

Buttery, E. & Buttery, A. 1995, *The dynamics of the network situation*, Department of Management, James Cook University of North Queensland, Townsville.

Byrt, W. J. 1968, *The Idea of Management*, Sunbook, Melbourne.

Callan, V., Gallois, C., & Noller, P. 1986, *Social Psychology*, Harcourt Brace Jovanovich, Sydney.

Caniglia, B. S. 1999, *Informal alliances versus institutional ties: The effects of elite alliances on environmental TSMO network positions*, Working Paper and Technical Report no 1999-8, University of Notre Dame, Department of Sociology, paper presented at 1999 American Sociology Association Conference, Chicago.

Carlson, R. L. 1996, *The information superhighway: Strategic alliances in telecommunications and multimedia*, St. Martin's Press, New York.

Carral, R. & Kajanto, M., 2008 Nokia: a case study in managing industry downturn, *Journal of Business Strategy*, 29, 1; 25-33.

Cashman, M. N. R. 1998, Outsourcing a virtual realty, *Financial Executive*, 14, 16, 12-16.

Caslon Analytics 2005, *Australasian telecommunications profile: History*, Canberra, www.caslon.com.au/austelcomspfrofile.htm (1/11/05).

Chan, S. H., Kensinger, J. W., Keown, A. J. and Martin, J.D., 1997, Do strategic alliances create value? *Journal of Financial Economics*, 46, 199-221.

Child, J. & Faulkner, D. 1998, *Strategies of cooperation: Managing alliances, networks, and joint ventures*, Oxford University Press, Oxford.

Chung, S. 2002, The virtual value web: Outsourcing strategy of internet ventures, in (eds) F. J. Contractor, &, P. Lorange, *Cooperative Strategies and Alliances in International Business*, Pergamon, Amsterdam.

Clifford, C. 1997, *Qualitative research methodology in nursing and healthcare*, The Open Learning Foundatin, Churchill Livingstone, New York.

Cohen, I. 1998, Finding new clients for forming strategic alliances*, Life Association News*, April 93, 4, 116-117.

Cox, F. 1998, Developments In telecommunications, in (eds) E. Moore & G. Lewis, *Australian Communications Technology & Policy: A Reader*, Centre for Information Studies and Australian Film Television and Radio School, Sydney.

Crosbie, S. K, 1974, *A tacit alliance: France and Israel and from Suez to the Six Day War*, Princeton University Press, Princeton, New Jersey.

Crossan, M. & Inkpen, A. 1995, The subtle art of learning through alliances, *Business Quarterly*, 12, 60, 68-78.

Daft, R., & Lengel, R. 1986, Organisational information requirements, media richness and structural design, *Management Science*, 32, 554-571.

Darling, P. 2003, Future network standards, *Telecommunications Journal of Australia*, 53, 1, 29-44.

Das, T. K. 2004, Time-span and risk of partner opportunism in strategic alliances, *Journal of Managerial Psychology*, 19, 8, 744-759.

Das, T. K. & Teng, B. S. 1997, Sustaining strategic alliances: Options and guidelines, *Journal of General Management*, Summer, 22, 4, 49-64.

Das, T. K. & Teng, B. S. 1998a, Between trust and control: Developing confidence in partner cooperation in alliances, *Academy of Management, The Academy of Management Review*, July, 23, 3, 491-512.

Das, T. K. & Teng, B. S. 1998b, Resource and risk management in strategic alliance making process, *Journal of Management*; 24, 1, 21-42.

Davidson, P. Simon, A. Gottscalk, L. Hunt, J. Wood, G. & Griffin, R.W. 2006, *Management core concepts and skills*, Australian edn, John Wiley, Brisbane.

De Man, A. P. 2001, The future of alliance capability towards a basic necessity for firm survival?, in (eds) A. P. de Man. G. Duysters & A. Vasudevan, 2001, *The Alliance Enterprise: Globalised Strategies for Corporation Collaboration*, Imperial College Press, London.

De Man, A. P. Duysters, G. Vasudevan, A. 2001, *The allianced enterprise: Globalised strategies for corporation collaboration*, Imperial College Press, London.

de Vaus, D. A. 1991, *Surveys in social research*, 3rd edn, UCL Press, London.

Deering, A. & Murphy, A. 2003, *The partnering imperative: Making business partnership work*, John Wiley [Place].

Department of Communications, Information Technology and the Arts (DOCITA) 1999, *Bandwidth: 2000-2004: National bandwidth inquiry*, report of the Australian Information Economic Advisory Council, Canberra.

Devlin, G. & Bleackley, M. 1997, Strategic alliances-guidelines for success, in (ed) by B. Lloyd, 1997, *Creating Value Through Acquisitions, Demergers, Buyouts and Alliances*, Pergamon, New York.

Diegel, S. 1998, David holds his own against Goliath, *Wireless Review*, November 1; 15, 21, 8.

Dodd, A. Z. 2000, *The essential guide to telecommunications*, 2nd edn, Prentice Hall, New Jersey.

Downey, P. R. 2004, Sustainability takes time*, International Journal of Sustainability in Higher Education*, 5, 1, 81-90.

Doz, Y. L. 1996, The evolution of cooperation in strategic alliances: Initial conditions or learning processes? *Strategic Management Journal*, 17 (Summer Special Issue), 55-83.

Doz,Y.L. & Hamel, G. 1998, *Alliance advantage: The art of creating value through partnering*, Harvard Business School Press, Boston, Massachusetts.

Dussauge, P. & Garrette, B. 1999, *Competing successfully through strategic alliance,* John Wiley, Ltd, New York.

Dussauge, P. & Garrette, B. 1997/1998, Anticipating the evolutions and outcome of strategic alliances between rival firms, *International Studies of Management and Organisation*, Winter, 27, 4, 104-126.

Dussauge, P., Garrette, B. & Mitchell, W. 2000, Learning from competing partners: Outcomes and durations of scale and link alliances in Europe North America and Asia, *Strategic Management Journal*, 21, 2, 99-126.

Economides, N. 1994, Monopolist's incentive to invite competitors to enter in telecommunications services, in (ed) G. Pogorel, *Global Telecommunications Strategies and Technological Change*, North-Holland, Amsterdam.

Eugene, H. 1995, Purchasing partnerships: The buyer's view, *Marketing Management*, Summer, 4, 1, 49.

Farrell, P.N. & Wood, P.A. 1999, Formation of strategic alliance in business services: Towards a new client-oriented conceptual framework, *Service Industry Journal*, January, 19, 1, 133-151.

Faulkner, D. O. 1993, International strategic alliances need not be temporary, paper presented at British Academy of Management Conference, Milton Keynes, September.

Finnie, W. C. 1998, Strategic partnering: Three case studies, *Planning Review*, September/October, 26, 4, 18-22.

Foddy, W. 1994, *Constructing questionnaires for interviews and questionnaires: Theory and practice in social research*, Cambridge University Press, Melbourne.

Frankel, R. & Whipple, J. S. 1999, Testing a model of long-term alliance success, *Hospital-Material Management Quarterly*, May, 20, 4, 55-59.

Freehills 2002, *Telecommunications in Australia: A Regulatory Guide*, Sydney.

Friedman, L. G. 1998, *The elusive strategic alliance*, in (eds) P. Lloyd, & P. Boyle, Web-Weaving Intranets, Extranets and Strategic Alliances, Butterworth Heinemann, Oxford.

Gaughan, P. A. 2007, *Mergers, acquisitions, and corporate restructuring*, 4th edn, John Wiley, New Jersey.

Geurts, D. & Van der Zee, H. 2001, Does alliance management differ from network management?, in (eds) D. M. Ard-Pieter, D. Geert & V. Ash., *The Alliance Enterprise: Global Strategies for Corporate Collaboration*, Imperial College Press, London.

Gibson, D. V. & Rodgers, E.M. 1994, *R & D collaboration on trial: The microelectronics and omputer technology corporation*, Harvard Business School Press, Boston.

Gomes-Cassares, B. 1994, Group versus group: How alliance networks compete, *Harvard Business Review*, July/August, 62.

Greenhalgh, L. 2001, *Managing strategic relationships: The key to business success*, The Free Press, New York.

Gulati, R. & Singh, H. 1998, The architecture of cooperation: Managing coordination cost and appropriation concerns in alliances, *Administrative Science Quarterly*, 43, 4, 781-814.

Gulati, R. & Zajac, E.J. 2000, *Reflections on the study of strategic alliances*, Oxford University Press, Oxford.

Gulati, R. 1995, Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances, *Academy of Management Journal*, 38, 1, 85-112.

Gulati, R. 1998, Alliances and networks, *Strategic Management Journal*, 19, 293-317.

Gunaratna, R. 2002, *Inside Al Qaeda: Global Network of Terror*, Hurst and Company, London.

Hadjikhani, A. & Thilenius, P. 2005, The impact of horizontal and vertical connections on relationships commitment and trust, *Journal of Business and International Marketing*, 20, 3, 136-147.

Hagedoorn, J. & Schakenraad, J. 1993, Strategic technology partnering and international corporate strategies, in (ed.) K. S. Hughes, *European Competitiveness*, Cambridge University Press.

Hamel, G., Prahalad, C. K. & Doz, Y. L. 1989, Collaborate with your competitors and win, *Harvard Business Review*, 67, 1, 133-139.

Hanson, D.; Dowling, P. J.; Hitt, M. A.; Ireland, R. D., & Hoskisson, R. E. 2005, *Strategic Management: Competitiveness and Globalisation*, 2nd edn, Thomson, Melbourne.

Hanson, D.; Dowling, P. J.; Hitt, M. A.; Ireland, R. D., & Hoskisson, R. E. 2008, *Strategic Management: Competitiveness and Globalisation*, 3rd edn, Thomson, Melbourne.

Harbison, J. R. & Pekar Jr., 1998, *Smart alliances: A practical guide to repeatable success*, Jossey-Bass Publishers, San Francisco.

Hargrove, R. 1998, *Mastering the art of creative collaboration*, McGraw-Hill, New York.

Heckman, G. 1998, Ownership and control in the Canadian telecommunications industry: The case of strategic alliances, *Canadian Business Law Journal*, 29, 97-144.

Hergert, M. & Morris, D. 1988, Trends in international cooperative agreements, in (eds) F. J. Contractor & P. Lorange, *Cooperative Strategies in International Business: Joint Ventures and Technology Partnerships between Firms*, New Lexington Press, San Francisco.

Hill, C. W. L. & Jones, G. R. 1998, *Strategic Management*, 4th edn, Houghton Mifflin, Boston.

Hill, C. W. L.; Jones, G. R.; Galvin, P., & Haidar, A. 2007, Strategic Management: An Integrated Approach, 2nd Australasian edn, John Wiley & Sons Australia Ltd, Milton.

Hinterhuber, H. H. & Levin, B. M. 1994, Strategic network: The organization of the future, *Long-Range Planning*, June, 43.

Hook, T. & Harding, J. 1982, *The world of business*, 2nd edn, Jacaranda Press, Brisbane.

Horrocks, R.J. & Scarr, R. W. A. 1993, *Future trends in telecommunications,* John Wiley, London.

Housel, T. J. & Skopec, E. W. 2001, *Global telecommunications revolution: The business perspective*, McGraw-Hill, New York.

Howarth, C. S., Gillin, M. & Bailey, J. 1995, *Strategic alliances: Resource-sharing Strategies for smart companies*, Pitman Publishing, Melbourne.

Hutchinson, M. J., 1994, Telecommunications Reform in Australia, in (eds) B. Wellenius & P.A. Stern, *Implementing Reforms in the Telecommunications Sector: Lessons from Experience*, The World Bank, Washington, D.C.

Hutchinson, M. J. 1996, Telecommunications Reform in Australia, in (eds) B. Wellenius, & P. A. Stern, *Implementing Reforms in the Telecommunications Sector*, The World Bank, Washington, D.C.

Hutt, M. D., Stafford, E. R., Walker, B. & Reingen, P. H. 2000, Can study define the social network of a strategic alliance*, Sloan Management Review*, 41, 2, 51-62.

Huxham, C. & Vangen, S. 2005, *Managing to Collaborate: The theory & practice of collaborative advantage*, Routledge, London.

International Market Assessment Pty Ltd, 1996*, Building customer-supplier alliances for long-term competitive advantage*, The Boston Consulting Group and IMA, Melbourne.

Irwin, H., More, E. & McGrath, M. 1998, Relationship management for innovation: The central role of communication in Australia's participation in two hi-tech industries, *Technology Analysis and Strategic Management* 10, 4, 467-481.

Johnston, S. J. 1991, Dangerous liaisons? *Inforworld*, 13, 4, 13.

Joshi, M. P., Kashlak, R.J., & Sherman, H.D. 1998, How alliances are reshaping telecommunications, *International Journal of Strategic Management*, 31, 4, 542-548.

Jucker, R. 2002, Sustainability? Never heard of it!, *International Journal of Sustainability in Higher Education*, 3, 1, 8-18.
www.emerald.com.au.

Kakabadse, N. K.; Kakabadse, A. & Kouzmin, A. 2002, Ethical considerations in management research: A truth seeker's guide, in (ed.) D. Partington, *Essential Skills for Management Research*, Sage Publications, London.

Kanter, R. M. 1994, Collaborative advantage: The art of alliances, *Harvard Business Review,* 72, 4, 96-108.

Karier, T. 1993, *Beyond Competition: The Economics of Mergers and Monopoly Power*, M.E. Sharpe, New York.

Kemmis, D.S., Johnston, T. D. R., Collyer, F. & Cliff, C. 1990, *Strategic alliances in the internationalisation of Australian industry,* The Centre of Technology and Social Change University of Wollongong, Australian Government Publishing Service, Canberra.

Khan, M.A. 1995, Sustainable development: The Key concepts, issues, implications, *Sustainable Development*, 3, 63-69.

Klint, M. B. & Sjoberg, U. 2003, Towards a comprehensive SCP-model for analysing strategic networks/alliances, International Journal of Physical Distribution & Logistics Management, 33, 5, 408-426.

Knight, P. T. 2002, *Small-scale research, pragmatic inquiry in social sciences and caring professions*, Sage, London.

KPMG, 1996, *Alliances and Networks: The Next Generation*, KPMG, Amsterdam.

Krishna, B., Raghuram, R. G. & Luigi, Z. 2003, What determines firm size? *Working Paper Series Journals*.

Larsson, R., Bengtsson, L., Henriksson, K. & Sparks, J. 1998, The interorganisational learning dilemma: collective knowledge development in strategic alliances, *Organisation Science*, May/June, 9(3), 285-305.

Leary, M. R. 1991, *Introduction to behavioural research methods*, Wadsworth, California.

Lee, M. 1994, *Beyond the Duopoly: Australian telecommunications policy and regulation*, AGPS, Canberra.

Lei, D. & Slocum, J. W. 1992, Global strategy, competence building and strategic alliance, *California Management Review*; Fall, 81-82.

Leigh, O. 1990, *Australian telecommunications industry: A source book*, Monash Information Services (MONINFO), Melbourne.

Lendrum, T. 2003, *The strategic partnering handbook: The practitioner's guide to partnership and alliances*, McGraw-Hill, Sydney.

Lendrum, T. 1995, *The strategic partnering handbook: A practical guide for managers*, McGraw-Hill, Sydney.

Lewis, J. D. 1999, *Trusted partners: How companies build mutual trust and win together*, The Free Press, New York.

Light, M. & Yankey, J. 1998, Commentary/response; *Nonprofit management and leadership*, Fall, 9 ,1, 111-115.

Lin, J. L., Yu, C. M. J. & Seetoo, D-H. W. 1997, Motivations, Partners contributions and control of international joint ventures, in (eds), P.W, Beamish, and J.P, Killing, 1997, *Cooperative Strategies, Asian Pacific Perspectives*, The New Lexington Press, San Francisco.

Litwin, M.S. 1995, *How to measure survey reliability and validity,* Sage Publications, London.

Lopez, S. P. L., Peon, J. M. M. & Ordas, C. J. V. 2005, Organisational learning as a determining factor in business performance, *The Learning Organisation*, 12, 3, 227-245.

Lorange, P. & Roos, J. 1992, *Strategic alliances: Formation, implementation and evolution*, Blackwell, Oxford.

Lorange, P. & Roos, J. 1993, *Strategic alliances: Formation, implementation, and evolution*, Blackwell, Massachusetts, Oxford.

Luarn, P., Lin, T. M. Y. & Lo, P. K. Y. 2005, Non-enforceable implementation of enterprise mobilisation: an exploratory study of the critical success factors, *Industrial Management & Data Systems*, 105, 6, 786-814.

MacDonald, S. & Mandeville, T. 1984, *Telecommunications in ASEAN and Australia,* ASEAN-Australia Joint Research Project, Organisation, Canberra and Kuala Lumpur.

MacDonald, S., Mandeville, T. & Lamberton, D. M. 1981, Telecommunications in the Pacific region: Impact of new regime, *Telecommunications Policy*, 5, 4, 243-250.

Maloni. M. J. & Benton, W. C. 1997, Supply chain partnerships: Opportunities for operations research, *European Journal of Operational Research*, 101, 419-429.

Mandal, P., Love, P. E. D. & Irani, Z. 2003, Pre-alliance planning: development of an information system infrastructure to support strategic alliance activities, *Management Decision*, 41, 2, 32-140.

Mansell, R. 1993, *The new telecommunications: A political economy of network evolution*, Sage Publications, London.

Maskell, B. H. 1994, *New performance measures*, Productivity Press, Portland.

McArdle, M. 1997, Telecommunications industry change and Telecom Australia from 1975, MBA Thesis, Victoria University of Technology, Melbourne.

McIntyre, J.. 1998, *Tomorrow's Company*, in (eds) P. Lloyd & P. Boyle, *Web-weaving: Intranets, Extranets and Strategic Alliances*, Butterworth Heinemann, Oxford.

McManus, M. L. & Hergert, M. L. 1998, *Surviving merger and acquisition*, Scott, Foresman, Glenview, Illinois.

Melody, B. 1990, *National objectives of telecommunications*, in (eds) S. Shaner & E. Deakin, Consumers & Telecommunications in the 1990s, Sydney.

Melody, W. H. 1997, Introduction and policy objectives and models of regulations, in (ed.) W. H. Melody, *Telecom Reform*: *Principles, Polices and Regulatory Practices*, Technical University of Denmark, Lyngby.

Melpoment, A. 1997, *Intelligent leadership*, Allen and Unwin, Sydney.

Miller, A. & Dess, G. G. 1996, *Strategic management*, McGraw-Hill, New York.

Moore, K. R. 1998, Trust and relationship commitment in logistics alliances: A buyer perspective, *International Journal of Purchasing and Materials Management*, Winter, 24-37.

More, E. & McGrath, M. 1996, *Cooperative corporate strategies in Australia's telecommunications sector: The nature of strategic alliances*, Macquarie University, Sydney.

Morrison, M. & Mezentseff, L, 1996, From strategic alliances to learning alliances: The key to a sustainable competitive advantage, Working Paper 01/96, August, Faculty of Business and Economics, Monash University, Melbourne.

Mortensen, W. J. 1997, Customer-supplier relations in the Australian information technology and telecommunications industry: A strategic perspective, PhD Thesis, Faculty of Business and Economics, Monash University, Clayton.

Nadler, D., Shaw, R. & Walton, A. 1995, *Discontinous change: Leading organisational transformations*, Jossey-Bass, San Francisco.

Naesens, K., Gelders, L. & Pintelon, L. 2007, A swift response tool for measuring the strategic fit for resource pooling: A case study, *Management Decision*, 45, 3, 434-449.

Narula, R. & Hagedoorn, J. 1999, Innovating through strategic alliances moving towards international partnerships and contractual agreements, *Technovation*, 19, 5, 283-294.

National Institute of Standards and Technology 2007, http://www.atp.nist.gov/overview.htm

Newman, V. & Chaharbaghi, K. 1996, Strategic alliances in fast-moving markets, *Long Range Planning*, 29; (6): 850-856.

Nexus, 1998, *The winning edge strategic alliances*, 8, 14, 1.

Norris, M. 2000, *Communications technology explained*, John Wiley, New York.

Ohmae, K. 1990, *The Borderless World: Power and Strategy in the Interlinked Economy*, Harper Collins, New York.

Olson, L. B., & Singsuwan, K. 1997, The effect of partnership, communication, conflict resolution behaviours on performance success of strategic alliances, in (eds), P. W. Beamish, & J. P. Killing, *Cooperative Strategies: Asian Pacific Perspectives*, San Francisco, The New Lexington press.

Optus, 2001 Annual Report, Sydney.

Organisation for Economic Cooperation & Development (OECD) 1995, OECD Communications Outlook 1995, Information Computer Communications Policy, OECD, Paris.

Organisation for Economic Cooperation & Development (OECD) 2001, New Patterns of Industrial Globalisation, OECD, Paris.

Ouchi, W. G. 1984a*, The M-form society: How American teamwork can recapture the competitive edge,* Addison-Wesley, Reading, MA.

Parke, A. 2001, A culture of cooperation? Not yet, in (eds) A. P. de Man, G. Duysters, & A. Vasudeva, 2001, *The Allianced Enterprise: Globalised Strategies for Corporation Collaboration*, Imperial College Press, London.

Parkhe, A. 1998, Understanding trust in international alliances, *Journal of World Business*, 33, 3, 219-240.

Pattison, P. & Robins, G. 2002, Neighbourhood-based models for social networks, *Sociological Methodology*, 32, 1, 301-337.

Perry, M. 1997, *Effective quick response manufacturing: Strategies and practices for the Australian clothing and footwear industry*, PhD Thesis, Monash University, Melbourne.

Peters, T. J. & Waterman, Jr. R. H. 1982, *In Search of excellence: Lessons from America's best-run companies*, Harper & Row, New York.

Picot, A. (ed.) 2006, *The future of telecommunications industries*, Springer, Heidelberg.

Pyka, A. & Windrum, P. 2003, The self organisation in strategic alliances, Economic of innovation and new technology, *Taylor and Francis Journal*, 12, 3, 245-268

Rai, A., Borah, S., & Ramaprasad, A. 1996, Critical success factors for strategic alliances in the information technology industry: An empirical study, Winter, *Decision Sciences*, 27, 1.

Raphael, E. D. 1998, The future of telecommunications: Connectivity through alliances, *Business Economics*, 33, 2, 32-36.

Reader, A. 1988, *Australian Communications* through linkage growth for a period of time as *Technology & Policy*, in (eds) E. More and G. Lewis, Australian Communications Technology and Policy, AFTRS and Centre for Information Studies, Kuringai CAE, Sydney.

Ring, P. S. 2002, The role of contract in strategic alliances, in (eds), F. G. Contractor & P. Lorange, *Cooperative Strategies and Alliances*, chapter 7, Pergamon, Amsterdam.

Robbins, S. P.; Bergman, R.; Stagg, I. & Coulter, M. 2003, *Foundations of Management*, Prentice-Hall, Sydney.

Robson, C. 2002, *A real world research: A resource for social scientist and practitioner –researchers*, 2nd edn, Blackwell, Massachusetts.

Rodriguez, C. M. 2005, Emergence of a third culture: shared leadership in international alliances, *International Marketing Review*, 22, 1, 67-95.

Rule, E. & Keown, S. 1998, Competencies of high-performing strategic alliances, *Planning Review*, September/October, 26, 4, 36-37.

Ryan, L. & Morris, R. 2005, Designing and managing a strategic academic alliance: An Australian university experience, *The Journal of Workplace Learning*, 17, 1/2, 79-87.

Sankar, C. S., Boulton, W. R., Davidson, N. W., Snyder, C.A. & Ussery, R. W. 1995, Building a world-class alliance: The universal card-TSYS case. *Academy of Management Executive*, 9, 2, 20-29.

Saunders, M., Lewis, P. & Thornhill, A. 2003, *Research Methods for Business Students*, 3rd edn, Prentice Hall, London.

Saxton, T. 1997, The effects of partner and relationship characteristics on alliance outcomes, *Academy of Management Journal*, 40, 2, 443-446.

Segil, L. 1998a, Strategic alliances for the 21st century, *Planning Review*, September/ October, 26, 4, 12-16.

Segil, L. 1998b, Successful alliances, *Executives Excellence*, August, 1, 8, 15.

Segil, L. 2001, Preemptive Alliances in the E-Economy, in (eds) A. P. de Man, G. Duysters & A. Vasudevan, *The Allianced Enterprise: Global Strategies for Corporate Collaboration*, Imperial College Press, London.

Sekaran, U. 1992, *Research methods for business – Skill building approach*, 2nd edn, John Wiley & Sons, New York.

Shalit, S. S. & Sankar, U. 1977, The measurement of firm size, *The Review of Economics and Statistics*, 59, 3,290-298.

Shaw, R. B. 1997, *Trust in the balance: Building successful organizations on results, integrity and concern*, Jossey-Boss, San Francisco.

Shipp, S., Roering, K. & Cardozo, R. 1990, Customer-linked strategies for industrial business, paper presented at the Annual Meeting of the Strategic Management Society, Stockholm, Sweden.

Sierra, M. C. 1995, *Managing global alliances: Key steps for successful collaboration*, The Economist Intelligence Unit, Addison-Wesley, London.

Small, M. & Singer J. D. 1969, Formal alliances, 18-16-1965: An Extension of the Basic Data, *Journal of Peace Research*, 6,3, 257-282.

Smith, M. E. 2003, Changing an organisation's culture: correlates of success and failure, *Leadership & Organization Development Journal*, 24, 5, 249-261.

Smith, K. G., Carroll, S. J. & Ashford, S. J. 1995, Intra and interorganisational cooperation: Toward a research agenda, *Academy of Management Journal*, 38, 1, 7-23.

Snyder, G.H. 1997, *Alliance Politics*, Cornell University Press, Ithaca.

Sowell, T. 1979, *Knowledge and decisions*, Basic Books, New York.

Spekman, R. E., Isabella, L. A. & MacAvoy, T. C. 2000, *Alliance competence: Maximising the value of your partnership*, John Wiley & Sons, New York.

Stafford, E. E. 1994, Using cooperative strategies to make alliances work, *Long-Range Planning*, June, 65.

Stanlake, G.F. 1982, *First economics*, Longman, Essex.

Stiles, J. 1997, Managing Strategic Alliance Success: Determining the Influence Factors of Intent within the Partnership: Paper presented to the Fourth International Conference on Multi-Organisational Partnerships and Cooperative Strategy, July, Oxford.

Strategic Direction, 2003, TEL seeks power to make alliances work: The benefit of joint forces, *Strategic Direction*, 19, 10, 19-1.

Strategic Direction, 2004, Bad connections: The reason behind the collapse of Pan-European telecom alliance, *Strategic Direction*, 20, 10, 27-29.

Sudman, S. & Blair, E. 1999, Sampling in the Twenty-First Century*, Journal of the Academy of Marketing Scienc*e, 27, 2, 269-277.

Tabakoff, N. 1999, Andersen ready to try again, *Business Review Weekly*, May 21, 38.

Taylor, A. 2005, An operations perspective on strategic alliance success factors: An exploratory study of alliance managers in the software industry, *International Journal of Operations and Production Management*, 25,5, 469-490.

Telstra 2001 *Annual Report*, Melbourne.

Telstra 2003 *Annual Report*, Melbourne.

Telstra 2004 *Annual Report*, Melbourne.

Telstra 2007 *Annual Report,* Melbourne.

Telstra Corporation Limited, 2002, *2001-2002 Industry Development Report*, 30 June, Melbourne.

Terry, F. 1997, Editorial: Strategic alliances, *Public Money and Management*, October/December, 17, 4, 3-4.

The Economist Intelligence Unit 1994, *Research Report*: *Best Practices: Strategic Alliances*, The Economist Intelligence Unit, New York.

Thomas, G. A. 1998, Strategic alliances key to future, *Credit Union Executive*, July/August, 38, 4, 16-18.

Thompson A. A. Jr. & Strickland III, A. J. 1998, *Strategic Management: Concepts and Cases,* 10th edn, Irwin McGraw-Hill, Boston.

Ticehurst, G.W. & Veal, A. J. 1999*, Business research methods: A managerial approach*, Longman, Kuala Lumpur.

Todd, K. 1998, Bridging international gaps, *Wireless Review*, November 1, 15, 21, 36-40.

Todeva, E. & Knoke, D. 2005, Strategic alliances and models of collaboration, *Management Decision*, 43, 1, 123-148.

Trengove, C. D. 1982, *Telecommunications in Australia: Competition or monopoly?*, Special Study Number 4, *Monash University Centre of Policy Studies*, Melbourne.

Trimbath, S., Frydman, H. & Frydman, R. 2000, Cost ineffieciency, size of firms and takeovers, Working Paper CV Starr Centre for Applied Economies, New York University, New York.

Tulip, S. 1999, Marriage of convenience, *Supply-Management*, May 27, 4, 11, 36-37.

Tyson, K. W. M. 1997, *Competition in the 21st Century*, St. Lucie Press, Boston.

Urban, S. & Vendemini, S. 1992, *European strategic alliances, cooperative corporate strategies in the New Europe*, Blackwell, Oxford.

Van Aken, J. E. 2001, A dancing elephant Is still an elephant: The challenges facing multinationals working in alliance-mode, in (eds) A. P. de Man, G. Duysters & A. Vasudevan, *The Allianced Enterprise: Global Strategies for Corporate Collaboration*, Imperial College Press, London.

van Marrewijk, A. 2004, Crisis in the transition of telecom alliances, *Journal of Managerial Psychology*, 19, 3, 235-251.

Varadarajan, P. R. & Cunningham, M. H. 1995, Strategic alliances: A synthesis of conceptual foundations, *Journal of the Academy of Marketing Science*, 23, 4, 282-296.

Veal, A. J. 2005, *Business research methods: A managerial approach*, Pearson Education Australia, Sydney.

Vogelsang, I. & Mitchell, B. M. 1997, *Telecommunications competition: The last ten miles,* The MIT Press, Cambridge.

Walt, S. M. 1987, *The origins of alliances*, Cornell University Press, Ithaca.

Ward, M. D. 1982, *Research gaps in alliance dynamics*, Monograph Series in World Affairs, 19, 1, Graduate School of International Studies, University of Denver, Denver.

Wellenius, B. & Stern, P. A. 1994, *Implementing reforms in the telecommunications sector: Lessons from experience*, World Bank, Washington D.C.

Whipple, J. M & Frankel, R 2000, Strategic alliance success factors, *Journal of Supply Chain Management*; Tempe; Summer; 36, 3, 21-28.

Williams, O. 1998, *Outsourcing: A CIO's perspective*, St. Lucie Press, Baton Rouge.

Yeung, H.W. 1997, *Cooperative strategies and Chinese business networks*, in (eds) P. W. Beamish, & J. P. Killing, *Cooperative Strategies: Asian Pacific Perspectives*, The New Lexington Press, San Francisco.

Yoshino, M.Y. & Rangan, U.S. 1995, *Strategic alliances: An entrepreneurial approach to globalisation*, Harvard Business School, Boston.

Zaheer, A., Lofstorm, S. & George, V. P. 2002, Interpersonal and interorganisational trust in alliance, in (eds) F. J. Contractor, & P. Lorange, Book Title, Pergamon, Amsterdam.

Zanfei, A. 1994, Surviving competition through cooperation: The case of the Italian telecommunication industry, *Journal of Industry Studies*, 1, 2, 65-76.

Zeng, M. & Hennart, J. F. 2002, From learning races to cooperative specialization: Towards a new framework for alliance management, in (eds) F. J. Contractor & P. Lorange, Pergamon. Amsterdam.

Zikmund, W. G. 2000, *Business Research Methods*, 6th edn, The Dryden Press, Orlando.

Zourray, K. 1998, Global markets, limited options, *Telecommunications International Edition*, July, 32, 7, 36-38.
http://www.aca.gov.au/aca_home/licensing/telcomm/list_of licensed_carriers/carriers

Other References:

http://www.accc.gov.au

http://www.atp.nist.gov/atp/overview.htm

http://www.dcita.gov.au

http://www.nowwearetalking.com.au

http://www.wto.org

APPENDICES

Appendix 1

Pilot Survey Letter

Pilot Survey Questionnaire

Victoria University of Technology
PO Box 14428
MELBOURNE CITY MC VIC 8001
Australia
Tel: (03) 9688 4535
Fax: (03) 9688 4272
Email: BusinessManagement@vu.edu.au

Footscray Park Campus
School of Management
Ballarat Road
Footscray

24th June 2000

To Whom It May Concern

Re: Evaluating Pilot Questionnaire

My pilot questionnaire evaluation is picked randomly from different industry sectors.

I appreciate your time and thank you for agreeing to evaluate my pilot questionnaire for the Doctor of Business Administration thesis on 'Cooperative Satisfaction Factors for Effective Strategic Alliances in the Australian Telecommunications Industry'.

Please evaluate the questionnaire (attached to this letter) as an alliance partner with a supplier of customer of another firm within the same industry as your company.

Kindly write your comments on the questionnaire and return to the above address and attention the reply to me. If there is any query regarding this matter you can contact myself at (03) 9688 5302 or my supervisor Mr. Michael Willemyns through email Michael.Willemyns@vu.edu.au

If you do not mind me citing your name in my thesis pilot study section, then please attach your business card to the questionnaire when you return it to me.

Thank You.

Yours sincerely,

Vanaja Karagiannidis
Postgraduate Student/Lecturer/Tutor
Fax: (03) 9688 4272
Vanaja.Karagiannidis@vu.edu.au

APPENDIX/ QUESTIONNAIRE

INSIGHT TO EFFECTIVE STRATEGIC ALLIANCES
{cooperative linkages between companies to pursue common goals (Beamish and Killing, 1997:95) }

Your cooperation is appreciated and let us open our hearts to learn what factors underpin effective alliances in your industry?
If your company has more than one alliance (cooperative linkage with a firm), just consider the one that is most significant to your firm. Please be assured that all information supplied by you will be treated confidentially.

(1). Size of my company in terms of people:

less than 50; Between 50-100; More than 100

(2). The significant cooperative relationship between my company and the other firm is mainly:

Informally carried out (loose alliance without a contract) *Contract bonding the partnership* *Equity Arrangements (Sharing resources)*

(3). Working in a cooperative linkage between my company and another company(either as a supplier or as a customer) to pursue a common goal.

less or equal to 1yr *1yr+ up to 3yrs;* *3yrs+ up to 5 yrs ;* *5 yrs+*

Previous studies have shown that the following factors are of concern to the level of satisfaction in an alliance relationship.
To achieve high satisfaction in a strategic alliance, how important are the following factors to you? (Circle the most applicable choice that describes your strategic alliance with the most significant firm).

(4) **EFFECTIVE COMMUNICATION**

(a) We have open communication to achieve common goals:

80-100% *60-79%* *50-59%* *40-49%* <40%

(b) We raise problems and solve them amicably to achieve common goals:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(c) We share information in co-ordinating activities to achieve common goals:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(5) **COMMITMENT AND TRUST**

(a) We have a committed relationship to meet specified goals:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(b) Staff provide accurate feedback on all the request in this cooperative linkage:

80-100% *60-79%* *50-59%* *40-49%* <40%

(c) Top management supports our cooperative linkage.

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(6) **WORKABLE POWER AND CONTROL**

(a) The cooperative linkage shares equal power and control in negotiations

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(b) The cooperative linkage share has equal power and control in decision making. The balance of power in decision making is equal:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(c) Our dominance of power and control is:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(7) **COMPATIBILITY**

(a) There is dependence to achieve common goal.

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(b) There is still independence in our own key area of competitive advantage.

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(c) Each party in the alliance desires to improve each of their posture:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(8) **CULTURAL RESPECT**

(a) The cooperative linkage acts in a manner that is consistent with expressed values, beliefs and practices:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(b) Ethical standards are being practiced in the cooperative linkage:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(c) We conform to a mutual ethical standard:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(9) **ALLIANCE IS WORTHWHILE**

(a) We benefit from the collaboration of our cooperative linkage:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(b) We support a win-win concept in our relationship:

80-100% *60-79%* *50-59%* *40-49%* *<40%*

(c) Our benefits out weighs our costs and risks.

80-100% *60-79%* *50-59%* *40-49%* *<40%*

THANK YOU FOR YOUR RESPONSES!

What other key factors are of importance to co operative linkages between companies to pursue effective alliance/s?

Would you like a follow-up of the insight of effective strategic alliance with a short case study?

Appendix 2

Round 1 Survey Letter

Round 1 Actual Questionnaire (black and white)

Ms Vanaja Karagiannidis
Research Doctorate Student
(School of Management)
Victoria University
Footscray Park Campus, G4.37
Tel: (03) 9688 5302.

9th August 2001

TO WHOM IT MAY CONCERN

Re: Survey on Strategic Alliances

Please find an enclosed four pages questionnaire on:*' Cooperative Strategic Alliances Practices in the Australian Telecommunications Industry" and a self addressed paid envelope.*

The purpose of the survey is to determine the level and importance of cooperative activities in strategic alliances within the telecommunications industry in Australia.

The survey will take approximately twelve minutes. I welcome any additional comments or suggestions from you (see page four of the questionnaire to write or attach a separate sheet and I will appreciate your practical comments).

The collected information will be confidential and anonymous. Aggregate results will be published in a report. This will be made available on request (see page four of the questionnaire to tick box). Should you have any questions regarding any aspects of this survey, please contact me on 9688 5302 or via email: vanaja.karagiannidis@vu.edu.au.

The Head of the School of Management, Faculty of Business and Law, Faculty Human Research Ethics Committee and the Post-graduate Committee has approved this research.

Kindly return answered questionnaire in the self-addressed envelope (supplied) as soon as possible.

Your participation will contribute to the success of this research for which I thank you and appreciate your time and effort.

Yours sincerely,

Vanaja Karagiannidis
Postgraduate Student/Lecturer/Tutor
Vanaja.Karagiannidis@vu.edu.au

QUESTIONNAIRE ON COOPERATIVE STRATEGIC ALLIANCE PRACTICES IN THE AUSTRALIAN TELECOMMUNICATIONS INDUSTRY

WHAT IS A STRATEGIC ALLIANCE?

The term strategic alliance/s conveys a variety of meanings. For the purpose of this study, an effective strategic alliance is taken as cooperative linkages between companies to pursue agreement purpose.

INSIGHT INTO EFFECTIVE STRATEGIC ALLIANCES

I am investigating the concept of strategic alliances and would appreciate your participation in this study. I would like you to consider the factors underpinning effective alliances in the telecommunications industry.

If your company has more than one alliance {cooperative linkage with a firm (supplier or customer)}, just consider the one that is most significant to your firm.

Please complete the following by ticking the most appropriate response and kindly fill in the blanks when indicated as others:

1. **Your title:** Senior Alliance Manager; Alliance Manager Alliance Supervisor Others: please specify _____

---

2. **Approximate number of people in your company:** large(101+) medium(50-100) small(1-49)

---

3. **How long has your company been involved in strategic alliance with another firm: (as a supplier or customer)?** 5 years 3 yrs+ up to 5 yrs 1 yr+ up to 3 yrs less or equal to 1 yr.

---

4. **The significant cooperative relationship between my company and the other firm is mainly:** Informally carried out (no equity sharing) Formally carried out (equity sharing) Other type please specify: _____

---

5. **Our alliance relationship is successful:** Totally For the most part To a moderate degree To a small / degree Not Yet

---

Please tick the most appropriate response to your alliance practices.

6.	**ALLIANCE COMMUNICATION BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a small degree	Not yet
a.	**The alliance has open communication to achieve common goals:**					
b.	**The alliance raises and solves problems amicably to achieve goals:**					
c.	**The alliance shares information in co ordinating activities to achieve common goals:**					
7.	**COMMITMENT AND TRUST BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a small degree	Not yet
a.	**The alliance has a committed relationship to meet specified goals:**					
b.	**Staff in the alliance provides accurate information to meet specified goals:**					
c.	**Top management throughout the alliance act with integrity:**					
8.	**WORKABLE POWER AND CONTROL BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a small degree	Not yet
a.	**The cooperative linkage shares equal power and control in negotiations:**					
b.	**The companies in the alliance have equal power and control in decision making:**					
c.	**The companies in the alliance has mutual power and control:**					

Please tick the most appropriate response to your alliance practices.

9.	**COMPATIBILITY BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a small degree	Not yet
a.	**There is dependence throughout the alliance to achieve goals:**					
b.	**There is independence in our own key area of competitive advantage:**					
c.	**Each party in the alliance has complementary skills to match one another:**					
10.	**CULTURAL RESPECT BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a small degree	Not yet
a.	**The cooperative linkage acts in a manner that is consistent with expressed values, beliefs and practices:**					
b.	**We both respect one another's organisational culture:**					
c.	**We both confirm to a mutual ethical standard:**					
11.	**ALLIANCE IS WORTHWHILE BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a moderate degree	Not yet
a.	**We both benefit from the collaboration of our cooperative linkage:**					
b.	**We both support a win-win concept in our relationship:**					
c.	**Our mutual benefit weighs the cost and risks:**					

Your practical viewpoint is appreciated and kindly complete the following questions:

12. What other factors are of importance for effective alliances?

13. How do you describe your strategic alliance practices?

14. Are your strategic alliance/s within Australia? or overseas? or both?

15. Further comments?

16. Would you like a copy of the final report on the aggregate survey results?

YES **NO**

17. Would you agree to discuss participate in a separate short alliance case study? This may be an opportunity to showcase your success as an industry model.

YES **NO**

CONTACT TELEPHONE NUMBER?

CONTACT PERSON?

THANK YOU FOR YOUR RESPONSE! ***@V.K.***

@V.K.

Appendix 3

Round 2 Survey Letter

Round 2 Actual Questionnaire (colour)

Victoria University of Technology
PO Box 14428
MELBOURNE CITY MC VIC 8001
Australia
Tel: (03) 9688 4535
Fax: (03) 9688 4272
Email: BusinessManagement@vu.edu.au

Footscray Park Campus
School of Management
Ballarat Road
Footscray

Ms Vanaja Karagiannidis
Research Doctorate Student
(School of Management)
Victoria University
Footscray Park Campus, G4.37
Tel: (03) 9688 5302.

30 November 2001

TO WHOM IT MAY CONCERN

Re: Survey on Strategic Alliances

Please find an enclosed four pages questionnaire on: *'Cooperative Strategic Alliances Practices in the Australian Telecommunications Industry" and a self addressed paid envelope.*

The purpose of the survey is to determine the level and importance of cooperative activities in strategic alliances within the telecommunications industry in Australia.

The survey will take approximately twelve minutes. I welcome any additional comments or suggestions from you (see page four of the questionnaire to write or attach a separate sheet and I will appreciate your practical comments).

The collected information will be confidential and anonymous. Aggregate results will be published in a report. This will be made available on request (see page four of the questionnaire to tick box). Should you have any questions regarding any aspects of this survey, please contact me on 9688 5302 or via email: vanaja.karagiannidis@vu.edu.au.

The Head of the School of Management, Faculty of Business and Law, Faculty Human Research Ethics Committee and the Post-graduate Committee has approved this research.

Kindly return answered questionnaire in the self-addressed envelope (supplied) as soon as possible.

Your participation will contribute to the success of this research for which I thank you and appreciate your time and effort.

Yours sincerely,

Vanaja Karagiannidis

QUESTIONNAIRE ON COOPERATIVE STRATEGIC ALLIANCE PRACTICES IN THE AUSTRALIAN TELECOMMUNICATIONS INDUSTRY

WHAT IS A STRATEGIC ALLIANCE?

The term strategic alliance/s conveys a variety of meanings. For the purpose of this study, an effective strategic alliance is taken as cooperative linkages between companies to pursue agreement purpose.

INSIGHT INTO EFFECTIVE STRATEGIC ALLIANCES

I am investigating the concept of strategic alliances and would appreciate your participation in this study. I would like you to consider the factors underpinning effective alliances in the telecommunications industry.

If your company has more than one alliance {cooperative linkage with a firm (supplier or customer)}, just consider the one that is most significant to your firm.

Please complete the following by ticking the most appropriate response and kindly fill in the blanks when indicated as others:

1.	**Your title:**	Senior Alliance Manager;	Alliance Manager	Alliance Supervisor	Others: please specify _____	
2.	**Approximate number of people in your company:**	large(101+)	medium(50-100)	small(1-49)		
3.	**How long has your company been involved in strategic alliance with another firm: (as a supplier or customer)?**	5 years	3 yrs+ up to 5 yrs	1 yr+ up to 3 yrs	less or equal to 1 yr.	
4.	**The significant cooperative relationship between my company and the other firm is mainly:**	Informally carried out (no equity sharing)	Formally carried out (equity sharing)	Other type please specify: _____		
5.	**Our alliance relationship is successful:**	Totally	For the most part	To a moderate degree	To a small degree	Not Yet

Please tick the most appropriate response to your alliance practices.

6.	**ALLIANCE COMMUNICATION BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a small degree	Not yet
a.	**The alliance has open communication to achieve common goals:**					
.b	**The alliance raises and solves problems amicably to achieve goals:**					
c.	**The alliance shares information in co ordinating activities to achieve common goals:**					

7.	**COMMITMENT AND TRUST BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a small degree	Not yet
a.	**The alliance has a committed relationship to meet specified goals:**					
b.	**Staff in the alliance provides accurate information to meet specified goals:**					
c.	**Top management throughout the alliance act with integrity:**					

8.	**WORKABLE POWER AND CONTROL BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a small degree	Not yet
a.	**The cooperative linkage shares equal power and control in negotiations:**					
b.	**The companies in the alliance have equal power and control in decision making:**					
c.	**The companies in the alliance has mutual power and control:**					

Please tick the most appropriate response to your alliance practices.

9.	**COMPATIBILITY BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a small degree	Not yet
a.	**There is dependence throughout the alliance to achieve goals:**					
b.	**There is independence in our own key area of competitive advantage:**					
c.	**Each party in the alliance has complementary skills to match one another:**					

10.	**CULTURAL RESPECT BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a small degree	Not yet
d.	**The cooperative linkage acts in a manner that is consistent with expressed values, beliefs and practices:**					
b.	**We both respect one another's organisational culture:**					
c.	**We both confirm to a mutual ethical standard:**					

11.	**ALLIANCE IS WORTHWHILE BETWEEN FIRMS**	Totally	For the most part	To a moderate degree	To a moderate degree	Not yet
a.	**We both benefit from the collaboration of our cooperative linkage:**					
b.	**We both support a win-win concept in our relationship:**					
c.	**Our mutual benefit weighs the cost and risks:**					

Your practical viewpoint is appreciated and kindly complete the following questions:

12. What other factors are of importance for effective alliances?

13. How do you describe your strategic alliance practices?

14. Are your strategic alliance/s within Australia? or overseas? or both?

15. Further comments?

16. Would you like a copy of the final report on the aggregate survey results?

YES **NO**

17. Would you agree to discuss participate in a separate short alliance case study? This may be an opportunity to showcase your success as an industry model.

YES **NO**

CONTACT TELEPHONE NUMBER?

CONTACT PERSON?

THANK YOU FOR YOUR RESPONSE! ***@V.K.***

@V.K.

Appendix 4

Structured Interview Questions for Case Study

Victoria University of Technology
PO Box 14428
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Australia
Tel: (03) 9688 4535
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Footscray Park Campus
School of Management
Ballarat Road
Footscray

STRUCTURED INTERVIEW QUESTIONS FOR THESIS:
"Cooperative Satisfaction Factors For Effective Strategic Alliances in the Australian Telecommunications Industry".

Q1 Kindly specify your name, name of your company and role in your business?

Q2 With your vast experience in the telecommunications industry within Australia and overseas how would you describe the issues in telecommunications industry in Australia?

Q3 How would you describe the Australian Telecommunications Industry?

Q4 What is your projection of the opportunities of the Telecommunications Industry in Australia in three years time and or five years time?

Q5 How would you define an alliance?

Q6 What other substitute words are used for an alliance in the telecommunications industry?

Q7 Why are alliances important in the telecommunications industry? What are the reasons for success?

Q8 With your knowing, does size of a company relate to successful alliance relationship in the telecommunications industry in Australia? If so, please explain why? If not, please explain why not?

Q9 With your knowing, does sustainability/length of an alliance relate to successful alliance relationship in the telecommunications industry in Australia? If so, please explain why? If not, please explain why not?

Q10 What factors have contributed to alliance success in the telecommunications industry? And what factors have not contributed to alliance success?

Appendix 5

Excel Data

Survey Results on Cooperative Strategic Alliance/Linkage Australian Telecommunications Industry

Q/R	r1	r2	r3	r4	r5	r6	r7	r8	r9	r10	r11	r12	r13	r14	r15	r16	r17	r18	r19	r20	r21	r22	r23	r24	r25	r26	r27	r28	r29	r30	r31	r32	r33	r34	r35	r36	r37
s1	3	2	4	3	3	2	5	3	4	2	2	2	5	3	2	2	3	2	2	3	2	4	3	3	5	4	4	3	3	4	2	4	3	3	2	5	5
s2	5	5	4	3	5	5	5	5	5	5	5	5	5	3	4	3	3	5	5	5	3	4	3	4	5	5	4	4	3	4	5	4	5	5	5	5	5
s3	5	4	4	3	4	5	5	5	4	5	3	5	5	3	3	5	5	3	4	5	5	4	3	5	3	4	4	4	3	3	5	3	4	1	3	5	5
s4	5	4	4	5	4	5	3	5	4	3	4	4	4	4	4	4	5	4	4	4	5	4	4	5	4	4	4	4	5	4	4	4	5	5	4	4	3
s5	4	4	4	2	4	4	4	4	4	3	4	4	4	4	4	5	5	4	4	4	5	3	3	3	4	4	4	4	3	4	5	5	4	3	2	4	4
f1a	3	3	4	3	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	3	3	4	5	5	3	5	2	5	4	3	2	4	4
f1b	4	3	3	3	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	5	3	4	3	4	4	4	4	4	5	2	5	3	3	3	4	4
f1c	4	3	3	3	4	4	4	4	4	3	4	4	3	4	4	4	4	4	4	3	4	4	3	3	3	4	4	4	4	5	2	5	4	3	2	4	4
f2a	3	3	4	4	4	4	4	4	4	4	4	4	3	4	4	5	5	4	4	4	5	4	5	3	3	4	5	5	4	4	2	4	4	4	2	3	4
f2b	4	3	4	3	4	4	4	4	3	3	3	4	4	4	3	5	5	4	4	4	4	5	4	3	4	4	5	5	4	4	4	4	4	3	2	4	4
f2c	4	3	3	4	4	4	4	4	3	4	4	4	3	4	4	4	4	4	4	3	3	4	5	3	4	4	4	4	4	4	4	4	4	3	4	4	4
f3a	4	3	3	3	4	3	4	4	3	3	4	3	3	3	4	4	4	4	4	4	3	4	4	3	4	4	5	5	4	4	2	4	2	4	2	4	4
f3b	3	3	3	3	4	3	3	4	3	3	4	3	3	3	4	3	3	4	4	4	3	5	3	2	3	3	5	5	4	4	2	4	2	3	2	4	4
f3c	3	3	3	2	4	3	4	4	3	3	3	3	3	3	3	3	3	4	4	4	4	5	4	2	3	3	4	4	4	4	2	4	3	3	2	4	4
f4a	3	2	4	3	4	4	4	4	3	4	4	4	2	4	4	4	4	5	5	2	4	4	3	3	3	4	4	4	3	4	2	4	4	3	2	3	4
f4b	4	4	4	3	4	5	4	4	4	4	4	5	2	5	4	3	3	5	5	2	4	5	4	4	4	4	5	5	4	5	5	5	4	3	4	4	4
f4c	3	3	3	2	4	4	4	4	4	4	3	4	2	4	3	4	4	5	5	2	4	5	5	3	3	4	3	3	4	5	2	5	4	4	3	4	4
f5a	4	4	3	4	4	4	3	4	4	4	4	4	3	4	4	4	4	4	4	3	4	5	4	3	4	4	4	4	4	4	4	4	4	4	3	3	3
f5b	5	4	4	4	4	4	3	4	4	4	4	4	3	4	4	4	4	5	5	3	4	5	5	2	5	4	4	4	4	4	4	3	4	4	3	3	3
f5c	5	3	4	4	4	4	4	4	4	4	4	3	3	3	4	4	4	3	3	3	4	5	4	2	5	4	4	4	4	4	3	4	4	4	3	3	3
f6a	4	3	4	3	4	4	4	4	4	4	4	4	3	4	4	5	5	5	5	3	5	5	5	4	4	4	4	4	4	5	3	5	4	4	2	4	4
f6b	5	3	4	4	5	5	4	3	4	3	4	3	3	3	4	5	5	4	4	3	5	5	5	3	5	4	3	3	4	5	2	5	4	4	2	4	4
f6c	4	3	3	3	4	4	4	4	4	2	4	3	3	3	4	4	4	4	4	3	4	5	5	3	4	4	4	4	4	5	2	5	3	3	2	4	4

Survey Results on Cooperative Strategic Alliance/Linkage Australian Telecommunications Industry

r38	r39	r40	r41	r42	r43	r44	r45	r46	r47	r48	r49	r50	r51	r52	r53	r54	r55	r56	r57	r58	r59	r60	r61	r62	r63	1	2	3	4	5		
2	4	3	4	4	3	2	5	4	5	3	3	3	3	2	4	5	2	3	3	3	3	3	4	2	2	0	18	24	13	8	63	Aggregate response for
5	3	3	4	5	5	3	3	4	4	5	4	5	5	5	5	5	5	5	3	5	5	4	4	5	4	0	0	12	15	36	63	each 's' and 'f' factor and
5	3	4	4	5	4	3	2	3	4	3	3	4	5	5	5	4	5	4	3	3	1	4	5	4	4	2	1	18	20	22	63	survey questions from 1-11
5	4	4	5	3	5	5	5	5	5	5	5	5	5	4	5	5	4	3	5	4	5	4	5	4	4	0	0	5	32	26	63	
4	4	3	4	4	4	5	4	4	4	4	4	4	4	4	4	4	3	4	4	3	4	4	3	4	4	0	2	10	45	6	63	
4	4	3	5	4	3	5	3	3	4	3	3	3	4	5	2	5	3	4	4	4	3	4	4	4	4	0	3	16	34	10	63	
4	4	3	5	4	4	5	3	4	4	4	4	4	4	5	1	4	3	4	4	3	3	4	4	4	4	1	1	14	41	6	63	
4	3	4	5	5	4	5	4	4	4	3	3	3	4	5	1	5	3	4	4	3	3	4	4	3	3	1	2	19	34	7	63	
3	4	4	5	5	4	4	5	5	5	4	4	4	3	4	2	4	3	4	4	4	4	5	5	3	3	0	3	11	36	13	63	
4	4	4	4	5	4	5	5	4	4	4	4	4	3	4	2	5	3	4	4	4	3	5	5	3	3	0	2	13	37	11	63	
4	5	3	4	5	3	4	5	5	5	3	3	3	3	4	3	5	5	4	4	3	3	5	5	4	4	0	0	17	36	10	63	
4	4	4	4	4	2	5	4	3	5	2	2	3	4	4	2	4	4	2	4	3	4	4	4	3	3	0	8	16	35	4	63	
3	4	3	3	3	2	4	3	4	5	2	2	2	4	4	1	5	4	2	2	3	3	4	5	3	3	1	10	27	19	6	63	
3	4	3	3	3	2	4	4	3	5	2	2	2	4	4	1	5	4	2	2	4	3	4	4	3	3	1	10	25	24	3	63	
4	3	4	5	4	3	5	3	4	5	3	3	3	5	5	3	4	2	4	3	4	3	4	4	3	3	0	6	20	30	7	63	
5	4	4	4	4	1	4	4	3	5	2	1	1	2	5	5	5	4	4	3	4	3	3	3	3	3	3	4	11	29	16	63	
4	4	5	4	4	2	5	4	2	5	2	2	2	2	5	4	4	4	4	4	4	4	4	4	4	4	0	10	10	33	10	63	
4	4	4	4	4	3	4	5	4	4	2	2	3	4	5	1	4	4	4	4	4	4	4	4	4	4	1	2	10	47	3	63	
4	4	4	5	4	4	3	5	5	4	3	3	4	4	5	2	5	4	3	4	4	4	5	5	4	4	0	2	11	37	13	63	
4	4	4	5	4	4	4	5	5	5	3	3	4	4	5	2	4	4	4	4	4	4	5	5	4	4	0	2	13	38	10	63	
4	4	4	5	4	3	5	4	4	5	3	3	3	3	5	4	5	4	4	4	4	4	4	4	4	4	0	1	10	38	14	63	
3	3	3	4	5	3	5	5	5	4	2	2	2	3	5	4	5	3	4	4	4	4	5	5	4	4	0	5	16	23	19	63	
4	3	4	4	4	2	5	3	5	5	3	3	3	3	4	4	4	3	3	4	3	3	5	5	4	4	0	4	20	30	9	63	

Appendix 6

Excel Results

EXCEL RESULTS

Calculation of Frequency of Occurrence of Factors

Rating	1	2	3	4	5	Total
s1	0	18	24	13	8	63
s2	0	0	12	15	36	63
s3	2	1	18	20	22	63
s4	0	0	5	32	26	63
s5	0	2	10	45	6	63
f1a	0	3	16	34	10	63
f1b	1	1	14	41	6	63
f1c	1	2	19	34	7	63
f2a	0	3	11	36	13	63
f2b	0	2	13	37	11	63
f2c	0	0	17	36	10	63
f3a	0	8	16	35	4	63
f3b	1	10	27	19	6	63
f3c	1	10	25	24	3	63
f4a	0	6	20	30	7	63
f4b	3	4	11	29	16	63
f4c	0	10	10	33	10	63
f5a	1	2	10	47	3	63
f5b	0	2	11	37	13	63
f5c	0	2	13	38	10	63
f6a	0	1	10	38	14	63
f6b	0	5	16	23	19	63
f6c	0	4	20	30	9	63

Frequency Percentage Rating Table

	1	2	3	4	5
s1	0.00	28.57	38.10	20.63	12.70
s2	0.00	0.00	19.05	23.81	57.14
s3	3.17	1.59	28.57	31.75	34.92
s4	0.00	0.00	7.94	50.79	41.27
s5	0.00	3.17	15.87	71.43	9.52
f1a	0.00	4.76	25.40	53.97	15.87
f1b	1.59	1.59	22.22	65.08	9.52
f1c	1.59	3.17	30.16	53.97	11.11
f2a	0.00	4.76	17.46	57.14	20.63
f2b	0.00	3.17	20.63	58.73	17.46
f2c	0.00	0.00	26.98	57.14	15.87
f3a	0.00	12.70	25.40	55.56	6.35
f3b	1.59	15.87	42.86	30.16	9.52
f3c	1.59	15.87	39.68	38.10	4.76
f4a	0.00	9.52	31.75	47.62	11.11
f4b	4.76	6.35	17.46	46.03	25.40
f4c	0.00	15.87	15.87	52.38	15.87
f5a	1.59	3.17	15.87	74.60	4.76
f5b	0.00	3.17	17.46	58.73	20.63
f5c	0.00	3.17	20.63	60.32	15.87
f6a	0.00	1.59	15.87	60.32	22.22
f6b	0.00	7.94	25.40	36.51	30.16
f6c	0.00	6.35	31.75	47.62	14.29

KEY:

s1: Title of respondent;
s2:Number of people in the organisation determining size of business
s3:Longevity/sustainablity of linkage
s4:nature of linkage relationship
s5:Success of relationship arrangement/alliance/linkage
f1:Communication between firms specified as a,b and c in questionnaire
f1a:The alliance has open communication to achieve common goals
f1b:The alliance raises and solves problems amicably to achieve goals
f1c:The alliance shares information in coordinating activities to achieve common goals
f2:Commitment and trust between firms specified as a,b and c in questionnaire
f2a:The alliance has a committed relationship to meet specified goals
f2b:Staff in the alliance provides accurate information to meet specified goals
f2c:top management throughout the alliance act with integrity
f3:Workable power and control between firms specified as a,b and c in questionnaire
f3a:The cooperative linkage shares equal power and control in negotiations
f3b:The companies in the alliance have equal power and control in decision making
f3c:The companies in the alliance has mutual power and control
f4:Compatibility between firms specified as a, b and c in questionnaire
f4a:There is dependence throughout the alliance to achieve goals
f4b:There is independence in our own key area of competitive advantage
f4c:Each party in the alliance has complementary skills to match one another
f5:Cultural respect between firms specified as a, b and c in questionnaire
f5a:The cooperative linkage acts in a manner that is consistent with expressed values, beliefs and practices
f5b:We both respect one another's organisational culture
f5c:We both confirm to a mutual ethical standard
f6:Alliance or arrangement between firms is worthwhile specified as a, b and c in questionnaire
f6a:We both benefit from the collaboration of our cooperative linkage
f6b:We both support a win-win concept in our relationship
f6c:Our mutual benefit weighs the cost and risks

Appendix 7

SPSS Spearman's rho Correlations

Correlations

			LEVEL	SIZE	LONGEVIT	CONTRACT	SUCCESS	COMM1	COMM2	COMM3
Spearman's rho	LEVEL	Correlation Coefficient	1.000	-.088	-.064	.012	-.035	.070	-.013	.171
		Sig. (2-tailed)	.	.492	.620	.925	.788	.588	.917	.180
		N	63	63	63	63	63	63	63	63
	SIZE	Correlation Coefficient	-.088	1.000	.319*	-.207	-.037	-.151	-.164	-.176
		Sig. (2-tailed)	.492	.	.011	.104	.771	.238	.200	.168
		N	63	63	63	63	63	63	63	63
	LONGEVIT	Correlation Coefficient	-.064	.319*	1.000	-.125	.167	.165	.069	.077
		Sig. (2-tailed)	.620	.011	.	.327	.191	.195	.589	.548
		N	63	63	63	63	63	63	63	63
	CONTRACT	Correlation Coefficient	.012	-.207	-.125	1.000	.037	-.209	-.030	.021
		Sig. (2-tailed)	.925	.104	.327	.	.772	.100	.813	.868
		N	63	63	63	63	63	63	63	63
	SUCCESS	Correlation Coefficient	-.035	-.037	.167	.037	1.000	.359**	.454**	.347**
		Sig. (2-tailed)	.788	.771	.191	.772	.	.004	.000	.005
		N	63	63	63	63	63	63	63	63
	COMM1	Correlation Coefficient	.070	-.151	.165	-.209	.359**	1.000	.663**	.650**
		Sig. (2-tailed)	.588	.238	.195	.100	.004	.	.000	.000
		N	63	63	63	63	63	63	63	63
	COMM2	Correlation Coefficient	-.013	-.164	.069	-.030	.454**	.663**	1.000	.603**
		Sig. (2-tailed)	.917	.200	.589	.813	.000	.000	.	.000
		N	63	63	63	63	63	63	63	63
	COMM3	Correlation Coefficient	.171	-.176	.077	.021	.347**	.650**	.603**	1.000
		Sig. (2-tailed)	.180	.168	.548	.868	.005	.000	.000	.
		N	63	63	63	63	63	63	63	63
	COTRUST1	Correlation Coefficient	.216	-.505**	-.155	.075	.133	.407**	.335**	.471**
		Sig. (2-tailed)	.089	.000	.224	.562	.298	.001	.007	.000
		N	63	63	63	63	63	63	63	63
	COTRUST2	Correlation Coefficient	.321*	-.342**	.097	.015	.329**	.415**	.353**	.538**
		Sig. (2-tailed)	.010	.006	.449	.905	.009	.001	.005	.000
		N	63	63	63	63	63	63	63	63
	COTRUST3	Correlation Coefficient	.135	-.193	-.007	-.132	-.025	.235	.233	.356**
		Sig. (2-tailed)	.292	.130	.960	.304	.845	.064	.066	.004
		N	63	63	63	63	63	63	63	63

Correlations

			LEVEL	SIZE	LONGEVIT	CONTRACT	SUCCESS	COMM1	COMM2	COMM3
Spearman's rho	POWER1	Correlation Coefficient	.180	-.272*	-.071	-.015	.074	.449**	.347**	.498**
		Sig. (2-tailed)	.158	.031	.581	.907	.564	.000	.005	.000
		N	63	63	63	63	63	63	63	63
	POWER2	Correlation Coefficient	.210	-.177	-.007	-.205	-.059	.537**	.354**	.429**
		Sig. (2-tailed)	.099	.165	.955	.107	.646	.000	.004	.000
		N	63	63	63	63	63	63	63	63
	POWER3	Correlation Coefficient	.250*	-.198	.025	-.172	-.011	.560**	.309*	.416**
		Sig. (2-tailed)	.048	.119	.845	.178	.935	.000	.014	.001
		N	63	63	63	63	63	63	63	63
	COMPAT1	Correlation Coefficient	-.017	-.176	.052	-.082	.197	.652**	.486**	.682**
		Sig. (2-tailed)	.894	.168	.688	.525	.121	.000	.000	.000
		N	63	63	63	63	63	63	63	63
	COMPAT2	Correlation Coefficient	.003	.054	.078	-.246	.017	.343**	.040	.309*
		Sig. (2-tailed)	.982	.673	.542	.052	.896	.006	.754	.014
		N	63	63	63	63	63	63	63	63
	COMPAT3	Correlation Coefficient	.002	-.199	-.052	-.180	-.004	.443**	.223	.468**
		Sig. (2-tailed)	.988	.119	.683	.157	.976	.000	.080	.000
		N	63	63	63	63	63	63	63	63
	CULRES1	Correlation Coefficient	-.177	-.285*	-.193	-.048	-.040	.315*	.101	.385**
		Sig. (2-tailed)	.164	.024	.130	.707	.755	.012	.431	.002
		N	63	63	63	63	63	63	63	63
	CULRES2	Correlation Coefficient	-.019	-.095	-.118	.123	-.114	.109	.073	.264*
		Sig. (2-tailed)	.880	.459	.357	.338	.374	.395	.570	.036
		N	63	63	63	63	63	63	63	63
	CULRES3	Correlation Coefficient	.223	-.293*	-.149	.115	-.029	.254*	.268*	.403**
		Sig. (2-tailed)	.079	.020	.243	.368	.821	.045	.033	.001
		N	63	63	63	63	63	63	63	63
	WORTH1	Correlation Coefficient	.022	-.330**	-.026	-.055	.242	.580**	.390**	.570**
		Sig. (2-tailed)	.861	.008	.837	.668	.056	.000	.002	.000
		N	63	63	63	63	63	63	63	63

Correlations

			LEVEL	SIZE	LONGEVIT	CONTRACT	SUCCESS	COMM1	COMM2	COMM3
Spearman's rho	WORTH2	Correlation Coefficient	.164	-.221	-.068	.016	.209	.277*	.247	.470**
		Sig. (2-tailed)	.198	.082	.598	.900	.100	.028	.051	.000
		N	63	63	63	63	63	63	63	63
	WORTH3	Correlation Coefficient	.183	-.298*	-.008	-.002	.229	.457**	.476**	.561**
		Sig. (2-tailed)	.152	.018	.951	.989	.071	.000	.000	.000
		N	63	63	63	63	63	63	63	63

Correlations

			COTRUST1	COTRUST2	COTRUST3	POWER1	POWER2	POWER3	COMPAT1
Spearman's rho	LEVEL	Correlation Coefficient	.216	.321*	.135	.180	.210	.250*	-.017
		Sig. (2-tailed)	.089	.010	.292	.158	.099	.048	.894
		N	63	63	63	63	63	63	63
	SIZE	Correlation Coefficient	-.505**	-.342**	-.193	-.272*	-.177	-.198	-.176
		Sig. (2-tailed)	.000	.006	.130	.031	.165	.119	.168
		N	63	63	63	63	63	63	63
	LONGEVIT	Correlation Coefficient	-.155	.097	-.007	-.071	-.007	.025	.052
		Sig. (2-tailed)	.224	.449	.960	.581	.955	.845	.688
		N	63	63	63	63	63	63	63
	CONTRACT	Correlation Coefficient	.075	.015	-.132	-.015	-.205	-.172	-.082
		Sig. (2-tailed)	.562	.905	.304	.907	.107	.178	.525
		N	63	63	63	63	63	63	63
	SUCCESS	Correlation Coefficient	.133	.329**	-.025	.074	-.059	-.011	.197
		Sig. (2-tailed)	.298	.009	.845	.564	.646	.935	.121
		N	63	63	63	63	63	63	63
	COMM1	Correlation Coefficient	.407**	.415**	.235	.449**	.537**	.560**	.652**
		Sig. (2-tailed)	.001	.001	.064	.000	.000	.000	.000
		N	63	63	63	63	63	63	63
	COMM2	Correlation Coefficient	.335**	.353**	.233	.347**	.354**	.309*	.486**
		Sig. (2-tailed)	.007	.005	.066	.005	.004	.014	.000
		N	63	63	63	63	63	63	63
	COMM3	Correlation Coefficient	.471**	.538**	.356**	.498**	.429**	.416**	.682**
		Sig. (2-tailed)	.000	.000	.004	.000	.000	.001	.000
		N	63	63	63	63	63	63	63
	COTRUST1	Correlation Coefficient	1.000	.616**	.351**	.737**	.360**	.343	.502**
		Sig. (2-tailed)	.	.000	.005	.003	.004	.006	.000
		N	63	63	63	63	63	63	63
	COTRUST2	Correlation Coefficient	.616**	1.000	.392**	.418**	.338**	.436**	.377**
		Sig. (2-tailed)	.000	.	.001	.001	.007	.000	.002
		N	63	63	63	63	63	63	63
	COTRUST3	Correlation Coefficient	.351**	.392**	1.000	.433**	.510**	.394**	.238
		Sig. (2-tailed)	.005	.001	.	.000	.000	.001	.060
		N	63	63	63	63	63	63	63

Correlations

			COTRUST1	COTRUST2	COTRUST3	POWER1	POWER2	POWER3	COMPAT1
Spearman's rho	POWER1	Correlation Coefficient	.373**	.418**	.433**	1.000	.728**	.617**	.387**
		Sig. (2-tailed)	.003	.001	.000	.	.000	.000	.002
		N	63	63	63	63	63	63	63
	POWER2	Correlation Coefficient	.360**	.338**	.510**	.728**	1.000	.843**	.448**
		Sig. (2-tailed)	.004	.007	.000	.000	.	.000	.000
		N	63	63	63	63	63	63	63
	POWER3	Correlation Coefficient	.343**	.436**	.394**	.617**	.843**	1.000	.459**
		Sig. (2-tailed)	.006	.000	.001	.000	.000	.	.000
		N	63	63	63	63	63	63	63
	COMPAT1	Correlation Coefficient	.502**	.377**	.238	.387**	.448**	.459**	1.000
		Sig. (2-tailed)	.000	.002	.060	.002	.000	.000	.
		N	63	63	63	63	63	63	63
	COMPAT2	Correlation Coefficient	-.007	.136	.326**	.260*	.357**	.390**	.390**
		Sig. (2-tailed)	.959	.286	.009	.039	.004	.002	.002
		N	63	63	63	63	63	63	63
	COMPAT3	Correlation Coefficient	.245	.224	.349**	.412**	.364**	.542**	.523**
		Sig. (2-tailed)	.053	.078	.005	.001	.003	.000	.000
		N	63	63	63	63	63	63	63
	CULRES1	Correlation Coefficient	.344**	.237	.495**	.453**	.395**	.429**	.388**
		Sig. (2-tailed)	.006	.062	.000	.000	.001	.000	.002
		N	63	63	63	63	63	63	63
	CULRES2	Correlation Coefficient	.359**	.295*	.481**	.358**	.353**	.307*	.280*
		Sig. (2-tailed)	.004	.019	.000	.004	.005	.014	.027
		N	63	63	63	63	63	63	63
	CULRES3	Correlation Coefficient	.483**	.367**	.471**	.415**	.362**	.371**	.365**
		Sig. (2-tailed)	.000	.003	.000	.001	.004	.003	.003
		N	63	63	63	63	63	63	63
	WORTH1	Correlation Coefficient	.416**	.349**	.374**	.504**	.463**	.537**	.616**
		Sig. (2-tailed)	.001	.005	.003	.000	.000	.000	.000
		N	63	63	63	63	63	63	63

Correlations

			COTRUST1	COTRUST2	COTRUST3	POWER1	POWER2	POWER3	COMPAT1
Spearman's rho	WORTH2	Correlation Coefficient	.355**	.344**	.407**	.322*	.328**	.348**	.299**
		Sig. (2-tailed)	.004	.006	.001	.010	.009	.005	.017
		N	63	63	63	63	63	63	63
	WORTH3	Correlation Coefficient	.366**	.345**	.452**	.551**	.581**	.440**	.444**
		Sig. (2-tailed)	.003	.006	.000	.000	.000	.000	.000
		N	63	63	63	63	63	63	63

Correlations

			COMPAT2	COMPAT3	CULRES1	CULRES2	CULRES3	WORTH1	WORTH2	WORTH3
Spearman's rho	LEVEL	Correlation Coefficient	.003	.002	-.177	-.019	.223	.022	.164	.183
		Sig. (2-tailed)	.982	.988	.164	.880	.079	.861	.198	.152
		N	63	63	63	63	63	63	63	63
	SIZE	Correlation Coefficient	.054	-.199	-.285*	-.095	-.293*	-.330**	-.221	-.298*
		Sig. (2-tailed)	.673	.119	.024	.459	.020	.008	.082	.018
		N	63	63	63	63	63	63	63	63
	LONGEVIT	Correlation Coefficient	.078	-.052	-.193	-.118	-.149	-.026	-.068	-.008
		Sig. (2-tailed)	.542	.683	.130	.357	.243	.837	.598	.951
		N	63	63	63	63	63	63	63	63
	CONTRACT	Correlation Coefficient	-.246	-.180	-.048	.123	.115	-.055	.016	-.002
		Sig. (2-tailed)	.052	.157	.707	.338	.368	.668	.900	.989
		N	63	63	63	63	63	63	63	63
	SUCCESS	Correlation Coefficient	.017	-.004	-.040	-.114	-.029	.242	.209	.229
		Sig. (2-tailed)	.896	.976	.755	.374	.821	.056	.100	.071
		N	63	63	63	63	63	63	63	63
	COMM1	Correlation Coefficient	.343**	.443**	.315*	.109	.254*	.580**	.277*	.457**
		Sig. (2-tailed)	.006	.000	.012	.395	.045	.000	.028	.000
		N	63	63	63	63	63	63	63	63
	COMM2	Correlation Coefficient	.040	.223	.101	.073	.268*	.390**	.247	.476**
		Sig. (2-tailed)	.754	.080	.431	.570	.033	.002	.051	.000
		N	63	63	63	63	63	63	63	63
	COMM3	Correlation Coefficient	.309*	.468**	.385**	.264*	.403**	.570**	.470**	.561**
		Sig. (2-tailed)	.014	.000	.002	.036	.001	.000	.000	.000
		N	63	63	63	63	63	63	63	63
	COTRUST1	Correlation Coefficient	-.007	.245	.344**	.359**	.483**	.416**	.355**	.366**
		Sig. (2-tailed)	.959	.053	.006	.004	.000	.001	.004	.003
		N	63	63	63	63	63	63	63	63
	COTRUST2	Correlation Coefficient	.136	.224	.237	.295*	.367**	.349**	.344**	.345**
		Sig. (2-tailed)	.286	.078	.062	.019	.003	.005	.006	.006
		N	63	63	63	63	63	63	63	63
	COTRUST3	Correlation Coefficient	.326**	.349**	.495**	.481**	.471**	.374**	.407**	.452**
		Sig. (2-tailed)	.009	.005	.000	.000	.000	.003	.001	.000
		N	63	63	63	63	63	63	63	63

Correlations

			COMPAT2	COMPAT3	CULRES1	CULRES2	CULRES3	WORTH1	WORTH2	WORTH3
Spearman's rho	POWER1	Correlation Coefficient	.260*	.412**	.453**	.358**	.415**	.504**	.322*	.551**
		Sig. (2-tailed)	.039	.001	.000	.004	.001	.000	.010	.000
		N	63	63	63	63	63	63	63	63
	POWER2	Correlation Coefficient	.357**	.364**	.395**	.353**	.362**	.463**	.328**	.581**
		Sig. (2-tailed)	.004	.003	.001	.005	.004	.000	.009	.000
		N	63	63	63	63	63	63	63	63
	POWER3	Correlation Coefficient	.390**	.542**	.429**	.307*	.371**	.537**	.348**	.440**
		Sig. (2-tailed)	.002	.000	.000	.014	.003	.000	.005	.000
		N	63	63	63	63	63	63	63	63
	COMPAT1	Correlation Coefficient	.390**	.523**	.388**	.280*	.365**	.616**	.299*	.444**
		Sig. (2-tailed)	.002	.000	.002	.027	.003	.000	.017	.000
		N	63	63	63	63	63	63	63	63
	COMPAT2	Correlation Coefficient	1.000	.525**	.382**	.188	.054	.532**	.187	.319*
		Sig. (2-tailed)	.	.000	.002	.139	.674	.000	.143	.011
		N	63	63	63	63	63	63	63	63
	COMPAT3	Correlation Coefficient	.525**	1.000	.514**	.224	.299*	.796**	.450**	.513**
		Sig. (2-tailed)	.000	.	.000	.078	.017	.000	.000	.000
		N	63	63	63	63	63	63	63	63
	CULRES1	Correlation Coefficient	.382**	.514**	1.000	.686**	.633**	.547**	.510**	.344**
		Sig. (2-tailed)	.002	.000	.	.000	.000	.000	.000	.006
		N	63	63	63	63	63	63	63	63
	CULRES2	Correlation Coefficient	.188	.224	.686**	1.000	.656**	.393**	.468**	.322*
		Sig. (2-tailed)	.139	.078	.000	.	.000	.001	.000	.010
		N	63	63	63	63	63	63	63	63
	CULRES3	Correlation Coefficient	.054	.299*	.633**	.656**	1.000	.403**	.516**	.435**
		Sig. (2-tailed)	.674	.017	.000	.000	.	.001	.000	.000
		N	63	63	63	63	63	63	63	63
	WORTH1	Correlation Coefficient	.532**	.796**	.547**	.393**	.403**	1.000	.650**	.649**
		Sig. (2-tailed)	.000	.000	.000	.001	.001	.	.000	.000
		N	63	63	63	63	63	63	63	63

Correlations

			COMPAT2	COMPAT3	CULRES1	CULRES2	CULRES3	WORTH1	WORTH2	WORTH3
Spearman's rho	WORTH2	Correlation Coefficient	.187	.450**	.510**	.468**	.516**	.650**	1.000	.667**
		Sig. (2-tailed)	.143	.000	.000	.000	.000	.000	.	.000
		N	63	63	63	63	63	63	63	63
	WORTH3	Correlation Coefficient	.319*	.513**	.344**	.322*	.435**	.649**	.667**	1.000
		Sig. (2-tailed)	.011	.000	.006	.010	.000	.000	.000	.
		N	63	63	63	63	63	63	63	63

*. Correlation is significant at the .05 level (2-tailed).
** Correlation is significant at the .01 level (2-tailed).

Nonparametric Correlations

Appendix 8

List of Telecommunication Licensed Carriers and Some Non Carriers

Key * refers to sampled Licensed Carriers.

Surveyed Businesses

Telecommunications Licensed Carriers and Non Carriers.

(Source: Australian Communications Authority; Business Who's Who; White Pages; Yellow Pages)

Key: * Means registered licensed carriers.

1. AAP Communications Services Pty Ltd
2. AAPT Ltd*
3. AARNet Pty Ltd*
4. Access Communications
5. Agile Network Pty Ltd*
6. Agile Pty Ltd*
7. Alcatel Australia Limited
8. Alphalink (Australia) Pty Ltd*
9. Altair Communications
10. Amcom Pty Ltd
11. Amcom Telecommunications Ltd
12. AOL (America On-line)/Rep in Australia
13. Apollo Business Communications
14. Argus Telecommunications
15. ARKAJON Communications Pty Ltd
16. Array Telecommunications
17. Asia-Online Australia Pty Ltd*
18. AT&T Corporation
19. Aussie Communications
20. Austar United Communications Ltd
21. Austcomm Tele Services Pty Ltd
22. Aus-Tech Communications
23. Australia Wide Communications Pty Ltd
24. Australian Cable and Telephony Pty Ltd
25. Australian Telephone Systems
26. B&M Communications (VIC) Pty Ltd
27. Ballarat Net Connect Pty Ltd
28. Bendigo Community Telco
29. Bright Telecommunications Services*
30. Broadband Access Pty Ltd*
31. Cable and Telephone Limited*
32. CCS Communications Pty Ltd
33. Cellnet Cellular Telecommunication Incorporation
34. Cellular World Communications
35. Central Communications Pty Ltd
36. Chime Communications Pty Ltd*
37. Choice Telecommunications
38. CIRCA Telecommunications
39. Combined Communications Pty Ltd
40. Commander Communications Ltd
41. Communications 2000 International Pty Ltd
42. Dandy Communications Telephone Systems
43. Dante Telecommunications
44. Data Communications Cabling Services Pty Ltd
45. Datafast Telecommunications Limited
46. DCS Direct Communications Services

47. Eclipse Telecommunications
48. Equant Integration Services
49. Ericsson Corporate Networks
50. Expert Telecommunications
51. First Choice Communications Pty Ltd
52. Foxtel Management Pty Ltd
53. Fujitsu Australia Computer & Communications
54. Global Business Solutions Limited
55. Global Dial Pty Ltd
56. Globaltalk Pty Ltd
57. Gobal One Communications Pty Ltd
58. Horizon Telecommunications Pty Ltd*
59. Hutchinson 3G Australia*
60. Hutchinson Telecoms-Australia*
61. IBM GSA Communications
62. ICC Integrated Communications Cabling
63. ILW Communications
64. INTEG Communications
65. JNB Communications Electronic Pty Ltd
66. KCS Communications Pty Ltd
67. Light Technologies Ptd Ltd*
68. Logital Network Limited
69. Lucent Technologies Australia Pty Ltd
70. Melbourne Communications
71. Motorola Australia Pty Ltd
72. NATCOM Telecommunications
73. National Telecom Group
74. NEC Australia Pty Ltd
75. New Skies Network Pty Ltd*
76. Nokia Telecommunications
77. Nomad Telecommunications
78. Norlink Communications Limited*
79. Nortel Australia Pty Ltd
80. Northgate Communications Australia*
81. OMNIconnect Pty Ltd*
82. OMNInet Wireless Pty Ltd*
83. One-Tel GSM 1800 Pty Ltd*
84. Optus Mobile Pty Ltd*
85. Optus Network Pty Limited*
86. Oriel Communications Limited
87. Oz Telecom Pty Ltd*
88. Ozitel Network Pty Ltd*
89. Pacific Telco Australia Pty Ltd
90. Paclink Communications Pty Ltd
91. Pahth Telecommunications Limited*
92. Plexus Communications
93. Powercor Australia Limited*
94. PowerTel Limited*
95. Prestige Communications
96. Prima Communications Pty Ltd
97. Primus Telecommunications Pty Ltd*
98. Professional Telecommunications

99. Pulsat Communications Ltd*
100. Quantum Multimedia Communications Pty Ltd*
101. Samsung Communications
102. Satellite Call Centre Australia Pty Ltd
103. Siemens Communications Pty Ltd
104. Simtel Communications
105. Sirius Telecommunications
106. Skilled Services
107. SkyNetGlobal Limited
108. Skyways Internet Services Pty Ltd*
109. Soul Pattison Telecommunications Pty Ltd*
110. Swiftel Communications*
111. Telecommunications Pty Ltd
112. Telematic Communications Pty Ltd
113. Telewide Communications
114. Telstra Corporation Limited*
115. Telstra Multimedia Pty Limited*
116. Tier One Communications
117. Total Communications
118. Virtual Communications/Big Blue now called iiNet
119. Vodafone Australian Ltd*
120. Wireless Pty Ltd